



RT. HON. SIR HERCULES G. R. ROBINSON, BART., G.C.M.G.

CEYLON IN 1893.

DESCRIBING

THE PROGRESS OF THE ISLAND SINCE 1803,

ITS PRESENT

AGRICULTURAL AND COMMERCIAL ENTERPRISES,

AND ITS

Unequalled Attractions to Visitors.

WITH

USEFUL STATISTICAL INFORMATION, SPECIALLY PREPARED MAP,
AND UPWARDS OF ONE HUNDRED ILLUSTRATIONS.

BY

JOHN FERGUSON,

Co-Editor of "Ceylon Observer," "Tropical Agriculturist," "Ceylon Handbook," etc. :

Life Member of the Ceylon Branch of the Royal Asiatic Society :

Honorary Corresponding Secretary of the Royal Colonial and Imperial Institutes.

"Embassies from regions far remote :

From India and the Golden Chersonese,

* * * *

And utmost Indian Isle TAPROBANE."—MILTON.

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TO
THE RIGHT HONOURABLE
SIR HERCULES G. R. ROBINSON, BART., G.C.M.G.,
WHO WAS GOVERNOR OF THE ISLAND OF CEYLON
AND THE DEPENDENCIES THEREOF FROM 1865 TO 1872;
DURING WHICH PERIOD
THE FIRST RAILWAY, FROM COLOMBO TO KANDY, WAS OPENED;
AN EXTENSION, AND NUMEROUS OTHER IMPORTANT
PUBLIC WORKS, INCLUDING
THE COLOMBO BREAKWATER, WERE ARRANGED FOR;
AND MANY USEFUL MEASURES OF LEGISLATION DEVISED,
THIS LITTLE VOLUME IS

Respectfully Dedicated,

AS A SLIGHT TOKEN OF ADMIRATION FOR THIRTY-SIX YEARS
OF SUCCESSFUL COLONIAL ADMINISTRATION
AS GOVERNOR OVER
NINE SEPARATE DEPENDENCIES OF THE BRITISH CROWN,
BY HIS OBEDIENT AND HUMBLE SERVANT,
THE AUTHOR.

P R E F A C E :

THE first edition of this work was published by Messrs. Sampson Low, Marston, & Co., as "Ceylon in 1883." A second edition, under the auspices of the same firm, was called for in a few months, and came out as "Ceylon in 1884." The latter volume was out of print for some time before a further issue could be made; but the Queen's Jubilee made it very appropriate that a third edition, much enlarged, should appear in 1887, (published by Messrs. John Haddon & Co.) as "Ceylon in the Jubilee Year."

So favourably was this enlarged publication received, that "out of print" has been the only answer to numerous inquiries since the beginning of 1890; and therefore the Author trusts that his succinct and popular account of what is the most important—whether population, trade, or resources be considered—of Her Majesty's Crown Colonies, will be once again found to supply a felt want. Thrown very much into the form of an Illustrated Handbook for Visitors, this volume will be found by all interested in the island (officials, merchants, planters, or home residents with relatives in the island) to contain late and reliable information on a great variety of topics. The endeavour has been to bring all the chapters up to date, while several have had considerable additions, and one or two have been well-nigh re-written. The Appendix, again, with some fifteen divisions, is almost entirely new, and includes the Lectures

which the Author was enabled to give before the Royal Colonial Institute and London Chamber of Commerce during 1892; a great deal of information respecting the staple planting product TEA, and other industries; much respecting shooting trips and sport; with accounts of the steamer trip round the island, and the journey across through the Eastern and Uva provinces to the new Railway Extension and thence to the "Buried Capital" of the North Central Province. The latest and best information respecting Buddhism in Ceylon is afforded through a long review of the valuable new book on the subject by the Bishop of Colombo, while the position of Christianity and Missions in the island is fairly indicated. The main results of the Census of 1891 are given, and a Glossary of native terms from a paper compiled under official auspices, which will be very useful for reference. A full Index makes all the main "facts and figures," as well as the general information, readily available.

Regarding "Ceylon in 1893" as an Illustrated Volume, a special feature of the present edition is the large number of new engravings which have been added both in the text and the appendices, while only a very few of the old ones have been omitted. The map of the Island (which will be found in the pocket inside cover, or bound in the volume if required) has been entirely re-constructed, and will be found more convenient for reference and more correct than its predecessors.

Finally, the author has to express his pleasure that permission has been given him to dedicate the present edition to one of the ablest in the long list of British Governors of Ceylon, and who, since he left our shores in 1872, has added so greatly to his experience and reputation as a Colonial Administrator. In New South Wales, New Zealand, and South Africa, Sir Hercules Robinson occupied a more prominent position than in Ceylon; but it is

gratifying to know that he regards his work in "the first of Crown Colonies" with as much interest as that done in any of the nine Dependencies he has administered during an uninterrupted Colonial service covering the long period of thirty-six years.

The Author must once again bespeak the forbearance of readers, especially in Ceylon, in respect of revision of the proof-sheets, which has to be attended to by kind friends, as he was only able to hand the "copy" to his Publishers before quitting the "old country," after a short holiday, for his adopted home.

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Hon. F. North, Earl of Guilford.



General Sir Robert Brownrigg.



Lieut.-General Sir Edward Barnes



Sir Robert Wilmot Horton.



Right Hon. J. A. Stewart Mackenzie.



Sir James Emerson Tennent.



Sir Henry George Ward



Major-General Henry Lockyer



Sir Charles J. MacCarthy.



Major-General T. O'Brien



Lieut.-General S. J. Hodgson.



Sir John Douglas



Sir A. N. Borch.



Sir J. R. Longdon.



Sir A. E. Havelock.

SOME OF THE BRITISH GOVERNORS OF CEYLON.

CEYLON IN 1893

CHAPTER I.

PAST HISTORY.

The Ophir and Tarshish of Solomon—Northern and Southern Indian dynasties—Chinese invasion and connection with the island in ancient and modern times—Portuguese and Dutch rule—British annexation.

I TAKE it for granted that the readers of this work will have some general acquaintance with the position, history, and condition of Ceylon. It is the largest, most populous, and most important of her Britannic Majesty's Crown colonies, which are so called because the administration of their affairs is under the direct control of the Colonial Office.

Ceylon has long been

“Confess'd the best and brightest gem
In Britain's orient diadem.”

There can be no danger nowadays of a member of Parliament getting up in his place to protest against British troops being stationed in Ceylon on account of the deadly climate of “this part of West Africa,” the “utmost Indian isle” being then confounded with *Sierra Leone*!

Known to ancient voyagers as far back as the time of King Solomon (of whose Ophir and Tarshish many believe

Ceylon to have formed a part), the story of its beauty, its jewels, and its spices was familiar to the Greeks and Romans, who called it *Taprobane*, and to the Arab traders who first introduced the coffee plant into this island, and who placed in *Serendib* the scene of many of Sindbad's adventures. It was also known to the Mohammedan world at large, who to this day regard the island as the elysium provided for Adam and Eve to console them for the loss of Paradise, a tradition used as a solatium by Arabi and his co-Egyptian exiles some years ago, when deported from their native land. To the people of India, to the Burmese, Siamese, and Chinese, Lanká, "the resplendent," was equally an object of interest and admiration, so that it has been well said that no island in the world, Great Britain itself not excepted, has attracted the attention of authors in so many different countries as has Ceylon.

There is no land, either, which can tell so much of its past history, not merely in songs and legends, but in records which have been verified by monuments, inscriptions, and coins; some of the structures in and around the ancient capitals of the Sinhalese are more than 2,100 years old, and only second to those of Egypt in vastness of extent and architectural interest.* Between 543 B.C., when Wijaya, a prince from Northern India, is said to have invaded Ceylon, conquered its native rulers, and made himself king, and the middle of the year 1815, when the last king of Kandy, a cruel monster, was deposed and banished by the British, the Sinhalese chronicles present us with a list of well-nigh 170 kings and queens, the history of whose administrations is of the most varied and interesting character, indicating the attainment of a degree of civilisation and material progress very unusual

* See "Buried Cities of Ceylon," by S. M. Burrows, C.C.S., published by A. M. and J. Ferguson.

in the East at that remote age. Long, peaceful, and prosperous reigns—such as that of the famous king Tissa, contemporary with the North Indian emperor Asoka, 250 B.C.—were interspersed with others chiefly distinguished by civil dissensions and foreign invasions. The kings of Ceylon, however, had given sufficient provocation to foreign rulers when in the zenith of their power. In the twelfth century the celebrated king Prākrama Bāhú not only defeated the rulers of Southern Indian states, but sent an army against the king of Cambodia, which, proving victorious, made that distant land tributary to Ceylon.* On the other hand, in retaliation for the plundering of a Chinese vessel in a Sinhalese port, a Chinese army, early in the fifteenth century, penetrated to the heart of the hill-country, and, defeating the Sinhalese forces at the then royal capital, Gampola, captured the king, and took him away to China;† and the island had for some time to pay an annual tribute to that country. At that time

* The king of Cambodia (Siam) in these days is a tribute-offerer to Lanká, as the following paragraph from a Sinhalese paper in 1886 will show :—

“PRESENTS FROM THE KING OF CAMBODIA TO THE BUDDHIST COLLEGE, MALIGAKANDA, COLOMBO.—Several gold images, an excellent umbrella, ornamented with precious stones, and a brush made of the king's hair, to be kept for use (sweeping) in the place where Buddha's image is placed, have been sent by the king of Cambodia to the high-priest in charge of the college. Two or three priests have also come down to receive instruction in Pali, etc., etc.—*Kirana*, April 19.”

During a visit to China in 1884 nothing struck the author more than the exact resemblance between a Buddhist temple in Canton and one in Ceylon; the appearance of the priests, their worship and ceremonies, all were alike. *Outside*, in that Mongolian world, everything was so different; the country, the towns, the customs, and the people with their pigtailed, their oval eyes, and loose dress, everything was strange and novel; but *inside* this Canton temple, before the shaven, yellow-robed monks, one felt for a moment carried back to “Lanká,” and its numerous Buddhist temples.

† Of this defeat and capture no mention is made in the Sinhalese History, the Mahawanso; it was only by referring to the archives at Pekin that the facts were brought out.

the Chinese imported from Ceylon a large quantity of *kaolin* for pottery, which still abounds in the island. The close connection in early times between the island and the great Eastern empire constitutes a very interesting episode. Fa-hien, the Chinese monk-traveller, visited Ceylon in search of Buddhist books about 400 A.D., and abode two years in the island, giving a glowing account, still extant, of the splendour of Anaradhapura, then in its zenith, with its brazen (brass-covered) palace, great shrines and monasteries, with "thousands" of monks, dagabas, and the Perahera (Procession of the Tooth).

Ceylon was, however, exposed chiefly to incursions of Malabar princes and adventurers with their followers, from Southern India, who waged a constant and generally successful contest with the Sinhalese. The northern and eastern portions of the island at length became permanently occupied by the Tamils, who placed a prince of their own on the Kandyan throne ; and so far had the ancient power of the kingdom declined that when the Portuguese first appeared in Ceylon, in 1505, the island was divided under no less than seven separate rulers. Ceylon, in the Middle Ages, was "the Tyre of Eastern and Southern Asia."

For 150 years the Portuguese occupied and controlled the maritime districts of Ceylon, but it was more of a military occupation than a regular government, and martial law chiefly prevailed. The army of Roman Catholic ecclesiastics introduced under Portuguese auspices alone made any permanent impression on a people who were only too ready to embrace a religion which gave them high-sounding honorific baptismal names, and interfered seldom, if at all, with their continued observance of Buddhist feasts and ceremonies. The Portuguese established royal monopolies in cinnamon, pepper, and musk ; exporting, besides cardamoms, sapan-wood, areca nuts, ebony, elephants, ivory, gems, pearls, and small quantities of

tobacco, silk, and tree cotton (the “kapok” of modern times).

The Dutch, who by 1656 had finally expelled the Portuguese rulers from the island, which the Lisbon authorities had said “they had rather lose all India than imperil,” pursued a far more progressive administrative policy, though, as regards commerce, their policy was selfish and oppressive. Still confined to the low country (the king of Kandy defying the new as he had done the previous European invaders), the Dutch did much to develop cultivation and to improve the means of communication—more especially by canals in their own maritime territory—while establishing a lucrative trade with the interior. The education of the people occupied a good deal of official attention, as also their Christianisation through a staff of Dutch chaplains; but the system of requiring a profession of the Protestant religion before giving employment to any natives speedily confirmed the native love of dissimulation, and created a nation of hypocrites, so that the term “Government Christian,” or “Buddhist Christian,” is common in some districts of Ceylon to this day.

The first care of the Dutch, however, was to establish a lucrative commerce with Holland, and their vessels were sent not only to Europe, but also to Persia, India, and the Far East ports. *Cinnamon* was the great staple of export; * next came *pearls* (in the years which gave successful pearl-oyster fisheries in the Gulf of Mannár); then followed elephants, pepper, areca or betel nuts, jaggery-sugar, sapan-wood and timber generally, arrack spirit, choya-roots (a substitute for madder), cardamoms, cinnamon oil, etc. The cultivation of coffee and indigo was begun, but not carried on to such an extent as to benefit the exports.

* The peeling of cinnamon, the selling or exporting of a single stick, save by the appointed officers, or even the wilful injury of a cinnamon plant, were made crimes punishable by death by the Dutch. See Appendix No. III. for Cinnamon.

Agriculture was promoted by the Dutch for an essentially selfish purpose, but nevertheless good resulted to the people from the system of forced labour, as in the case of the planting of cocoa-nut palms along the western coast, from Colombo southwards, which, so late as 1740, was described by Governor Van Imhoff as waste-land to be surveyed and divided among the people, who were bound to plant it up. At the end of last century, when the British superseded the Dutch in the possession of the maritime provinces of Ceylon, the whole of the south-western shore, for nearly 100 miles, presented the unbroken grove of palms which is seen to this day.

From 1797 to 1802 Ceylon was placed under the East India Company, who administered it from Fort St. George, Madras; but in the latter year it was made a Crown colony; the Hon. F. North, afterwards Earl of Guilford, continued as administrator, and was therefore the first governor of Ceylon. It soon became evident there could be no settled peace until the tyrant king on the Kandyan throne—hated by his own chiefs and people—was deposed, and the whole island brought into subjection to the British Crown. This was accomplished in 1815, when, at the instigation of the Kandyan chiefs and people themselves, Wikkrama Sinha, the last king, was captured and deposed, and exiled by the British to Southern India.

So great was the value attached to Ceylon as the “key of India” owing to the grand harbour of Trincomalee, as well as its supposed fabulous wealth in precious stones and valuable produce, that, at the general peace, Britain chose to give up Java to the Dutch, and retain this little island, so inferior in area, population, and natural resources.

CHAPTER II.

THE ISLAND IN 1796, 1815, AND SEVENTY-EIGHT YEARS LATER.

Extent and topographical features—Condition of the island previous to, and after, seventy-eight years of British rule contrasted.

HAVING now arrived at the British period, it may be well to give some idea of the condition of Ceylon and its people in the early part of this century, and to compare the same with what is realised after British government has been established for seventy-eight years throughout the whole island.

The position of Ceylon as a “pearl-drop on the brow of India,” with which continent it is almost connected by the island of Ramisseram and the coral reef called Adam’s Bridge, is familiar to all who have ever glanced at a map of Asia. To that great continent it may be said to be related as Great Britain is to Europe, or Madagascar to Africa. In extent it comprises nearly sixteen million acres, or 24,702 square miles, apart from certain dependent islands, such as the Maldives. The total area is about five-sixths of that of Ireland, but is equal to nearly thirty-seven times the superficial extent of the island of Mauritius, which sometimes contests with Ceylon the title of the “Gem of the Indian Ocean.” One-sixth of this area, or about 4,000 square miles, is comprised in the hilly and mountainous zone which is situated about the centre of the south of the island;

while the maritime districts are generally level, and the northern end of the island is broken up into a flat, narrow peninsula and small islets. Within the central zone there are 150 mountains or ranges between 3,000 and 7,000 feet in altitude, with ten peaks rising over the latter limit. The highest mountain is Pidurutalágala (8,296 feet, or nearly 1,000 feet higher than Adam's Peak, 7,353 feet), which was long considered the highest, because to voyagers approaching the coast it was always the most conspicuous, mountain of Ceylon.

The longest river, the Mahaveliganga (the Ganges of Ptolémy's maps), has a course of nearly 150 miles, draining about one-sixth of the area of the island before it reaches the sea at Trincomalee on the east coast. There are five other large rivers running to the west and south, besides numerous tributaries and smaller streams. The rivers are not favourable for navigation, save near the sea, where they expand into backwaters, which were taken advantage of by the Dutch for the construction of their system of canals all round the western and southern coasts.

There are no natural inland lakes, save what remains of magnificent artificial tanks in the north and east of the island, and the backwaters referred to on the coast. The lakes which add to the beauty of Colombo, Kandy, and the Sanatarium, Nuwara Eliya, are artificial or partly so.

Most of the above description was true of Ceylon at the beginning of the century even as it is now; but in other respects how altered! It is impossible to get full and exact information as to the condition in which the British found the island and its people in the early years, and up to the subjugation of the Kandyan division in 1815. But from the best authorities at our command we have compiled the following tabular statement to show

at a glance a few of the salient points in which the change is most striking, by far the greater part of the change having taken place within the reign of Queen Victoria :—

· CEYLON.

	In 1796—1815.	In 1893.
Population	From $\frac{3}{4}$ to 1 million	3,098,403
No. of houses	20,000 (tiled)	550,000
Population of the capital, Colombo	28,000	130,000
Military force	6,000	1,150
Cost of ditto	£160,000	£120,000
Imperial share	£160,000	£40,000
Volunteer corps	nil	1,129 efficient
Cost	—	£8,000
Police	nil	1,400
Cost	—	£60,000
Revenue	£226,000	£1,300,000*
Expenditure	£320,000	£1,280,000
Trade :—		
Imports—value	£266,790	£4,700,000} †
Exports— „	£206,583	£4,500,000}
		(local Customs' value, really worth much more)
Roads	Sand and gravel tracks	Metalled, 1,450 miles Gravelled, 1,370 miles Natural, 700 miles
Bridges	none	Too numerous to mention
Railways	none	265 miles
Canals	120 miles	170 miles
Tonnage of shipping entered and cleared	75,000 tons	5,700,000 tons
Government Savings Bank :—	nil	74
Deposits	nil	£250,000
No. of Depositors	nil	13,000
Post Office Savings Banks	nil	90
No. of Depositors	nil	18,000
Exchange and Deposit Bank Offices	nil	14

* More properly Rupees 18,000,000.

† In 1891 the total values in local currency were—Imports, R66,635,000; Exports, R58,800,000.

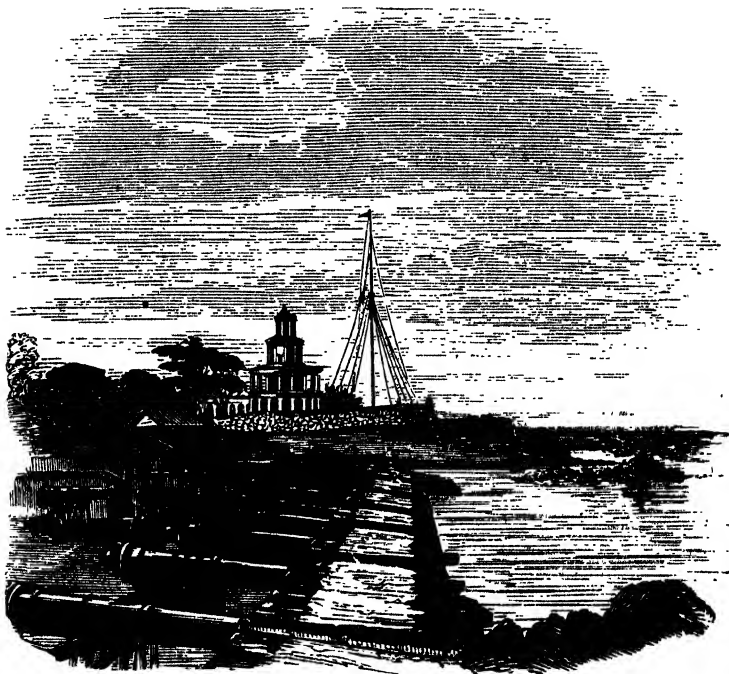
	In 1796—1815.	In 1893.
Annual volume of business in Colombo Banks' Clearing-house	nil	about R70,000,000
Government note issue	nil	R5,750,000
Educational expenditure	£3,000	£50,000
(for schools and clergy)		
No. of schools	170	2,200
No. of scholars	4,500	155,000
The press	Govt. Gazette only	36 newspapers and periodicals
Medical expenditure	£1,000	£50,000
No. of civil hospitals and dispensaries	nil	125
Covenanted { Civil servants :		
Revenue officers, judges, magistrates, etc.	6	48
Charitable allowances from general revenue	6	40
	£3,000	£8,000
	No Poor Law	Friend in Need Society for Voluntary Relief, £2,000
		No Poor Law
Post offices	4	250
Total No. of letters	not known	64,000,000
Money order offices	nil	125
Telegraph wires	nil	1,550 miles
No. of newspapers despatched	nil	80,000
Area cultivated (exclusive of natural pasture)	400,000 acres	4,850,000 acres
Live stock:—		
Horses,* cattle, sheep, goats, swine, etc.	250,000	1,500,000
Carts and carriages	50	25,000

[For a fuller statistical statement, and for more detailed information still, see the latest edition of Ferguson's "Ceylon Handbook and Directory."]

There is of course an immense amount of improvement which cannot be tabulated, even if we extended our

* Of 17,000 horses imported between 1862 and 1893, the greater portion have been bought by native gentlemen, traders, coach-owners, etc.

comparison in this form to much greater length. The greatest material change from the Ceylon of pre-British days to the Ceylon of the present time is most certainly in respect of means of internal communication. If, according to Sir Arthur Gordon (as quoted by Charles



THE OLD LIGHTHOUSE (NOW SIGNALLER'S RESIDENCE) AND FLAG-STAFF, COLOMBO, WITH A PORTRAIT OF THE BATTERY.

[From a Photograph by Slinn & Co.]

Kingsley in "At Last"), the first and most potent means of extending civilisation is found in roads, the second in roads, the third again in roads, Sir Edward Barnes, when Governor of Ceylon (1824 to 1831), was a ruler who well understood his duty to the people, and he was followed at intervals by worthy successors.

When the English landed in Ceylon in 1796, there was not in the whole island a single practicable road, and troops in their toilsome marches between the fortresses on the coast dragged their cannon through deep sand along the shore. Before Sir Edward Barnes resigned his government in 1831, every town of importance was approached by a carriage-road. He had carried a first-class macadamised road from Colombo to Kandy, throwing a "bridge of boats" (which is only now, in 1893, to be superseded by an iron bridge) over the Kelani river near Colombo, erecting other bridges and culverts too numerous to mention *en route*, and constructing, through the skill of General Fraser, a beautiful satin-wood bridge of a single span across the Mahaveliganga (the largest river in Ceylon) at Peradeniya, near Kandy. On this road (72 miles in length) on the 1st of February, 1832, the Colombo and Kandy mail-coach—the first mail-coach in Asia—was started; and it continued to run successfully till the road was superseded by the railway in 1867.

There can be no doubt that the permanent conquest of the Kandyan country and people, which had baffled the Portuguese and Dutch for 300 years, was effected through Sir Edward Barnes's military roads. A Kandyan tradition, that their conquerors were to be a people who should make a road through a rocky hill, was shrewdly turned to account, and tunnels formed features on two of the cart-routes into the previously almost impenetrable hill-country. The spirit of the Highland chiefs of Ceylon, as of Scotland seventy years earlier, was effectually broken by means of military roads into their districts; and although the military garrison of Ceylon has gone down from 6,000 troops to 1,110, and, indeed, although for months together the island has been left with not more than a couple of hundred of artillerymen, no serious trouble has been given for about seventy-five years by the previously

warlike Kandyans or the Ceylonese generally. The so-called "rebellion" of 1848 is not deserving of mention, since it was so easily quieted that not a single British soldier received a scratch from the Sinhalese.



BRIDGE OF BOATS, COLOMBO,

1831—1893 (*now to be superseded by a permanent Iron Girder Bridge*).

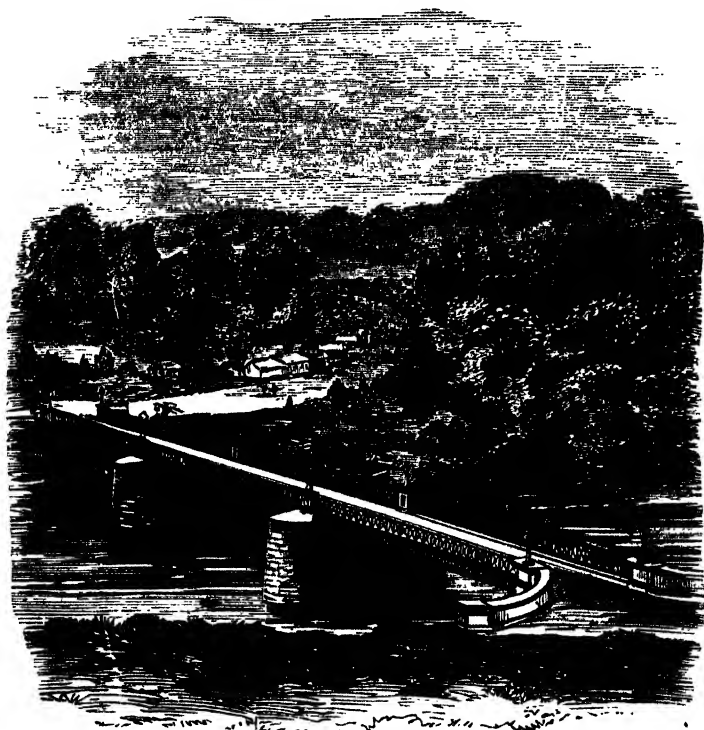
So much for the value of opening up the country from a military point of view. Governor Barnes, however, left an immense deal to do in bridging the rivers in the interior, and in extending district roads; but of this not

much was attempted until the arrival of his worthiest successor, Sir Henry Ward. This governor, with but limited means, did a great deal to open up remote districts, and to bridge the Mahaveliganga at Gampola and Katugastotte, as well as many other rivers which in the wet season were well-nigh impassable. He thus gave a great impetus to the planting enterprise, which may be said practically to have taken its rise in the year of the Queen's accession (1837). For the restoration and construction of irrigation works to benefit the rice cultivation of the Sinhalese and Tamils, Sir Henry Ward also did more than any of his predecessors. He, too, began the railway to Kandy, which was successfully completed in the time of his successors, Sir Charles MacCarthy and Sir Hercules Robinson.

In Sir Hercules Robinson Ceylon was fortunate enough to secure one of the most active and energetic governors that ever ruled a Crown colony. Sir Hercules Robinson—to whom this volume is dedicated—left his mark in every province and nearly every district of the country, in new roads, bridges, public buildings, and especially in the repair of irrigation tanks and channels and the provision of sluices. He extended the railway from Peradeniya to Gampola and Nawalapitya, some seventeen miles; and he laid the foundation of the scheme through which, under his successor, the late Sir William Gregory, the Colombo Breakwater was begun. By this great undertaking, through the engineering skill of Sir John Coode and his local representative, Mr. John Kyle, there has been secured for the capital of Ceylon one of the safest, most convenient and commodious artificial harbours in the world.

To Sir William Gregory belongs the distinction of having spent more revenue on reproductive public works than any other governor of Ceylon. The roads in the

north and east of the island, which were chiefly gravel and sand tracks, were completed in a permanent form, and nearly every river was bridged. The North-Central Province, a purely Sinhalese rice-growing division of the



THE IRON LATTICE BRIDGE OVER THE MAHAVELIGANGA,
AT KATUGASTOTTE, NEAR KANDY.

[From a Photograph by Slinn & Co.].

country, was called into existence, and large amounts were invested in tanks and roads; planting roads were extended; about fifty miles were added to the railway system, and preliminary arrangements made for a further

extension of some sixty-seven miles, forty-two of which have since been undertaken and completed. When Governor Gregory left in 1877, there were few rivers of any importance left unbridged, a large extent of previously unoccupied country had been opened up for cultivation, and an impetus given to both natives and the European colonists in the extension of cultivation, especially of new products, which alone saved the island from a serious collapse in the years of commercial depression and blight on coffee which followed. After 1877 not many miles of new road were added by Sir James Longden; but Governor Gordon greatly improved existing roads, and made several extensions, besides constructing some important bridges, especially in the new and rising Kelani Valley tea district. It is a great matter to be able to say that, whereas the Rev. James Cordiner, chaplain to the Governor of Ceylon in 1807, could write, "Strictly speaking, there are no roads in Ceylon," now, after some ninety years of British rule, about 1,500 miles of first-class metalled roads, equal to any in the world, have been constructed, besides about 1,400 miles of gravelled roads for light traffic, supplemented by 600 miles of natural tracks available in dry weather to traverse districts where as yet there is little or no traffic. The main roads are those from Colombo to Batticaloa *viâ* Ratnapura, Haputalé, and Badulla, right across the island; from Colombo to Trincomalee *viâ* Kandy, and another branch *viâ* Kurunégala, also right across the breadth of the island, but north instead of south of the Central Province; from Jaffna southwards through the centre of the island to Kandy, and thence to Nuwara Eliya and Badulla, and by a less frequented route to Hambantota on the south coast; from Kandy to Mannár on the north-west coast—the great immigration* route; and the main roads on the coast, Colombo to Galle and Hambantota, and north to Mannár

and almost to Jaffna. Subsidiary first-class roads, especially in the Central Province, are too numerous to mention.

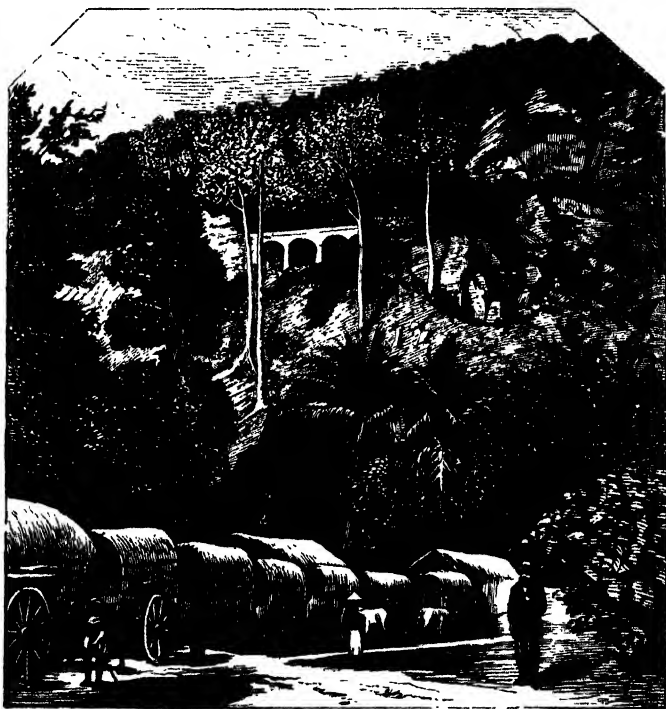
The benefit which this network of roads has conferred on the people it is impossible to over-estimate. Secluded districts have been opened up, and markets afforded for produce which previously was too often left to waste; settlements, villages, and even large towns, have sprung up within the last fifty-five years (during our good Queen's reign) alongside roads where previously all was jungle and desolation, and means of employment have been afforded to a people who had scarcely ever seen a coin.

As in India, so on a smaller scale in Ceylon, it is a recognised fact that there is no more effectual preventive of famine than internal means of communication, whether by road, rail, canal, or navigable river. There has probably never been a year in which India, within its widely extended borders, did not produce enough food to supply all its population; but unfortunately there has been no means of getting the superabundance of one district transferred to the famine area in another part of the continent. So in Ceylon, in years gone by, there has been great scarcity and mortality in remote districts without the central Government at Colombo being made properly aware of the fact, or being able to supply prompt relief. The mortality from fever and food scarcity in some parts of the country must thus have been very great before British times.

Roads, again, are great educators, but in this they are surpassed by railways in an Oriental land. The railways in India and Ceylon are doing more in these modern days to level caste and destroy superstition than all the force of missionaries and schoolmasters, much as these latter aid in this good work.

The railway between Colombo and Kandy, projected originally about forty years ago, was not seriously taken in

hand till the time of Sir Henry Ward. After many mistakes and alterations of plans, it was successfully completed under the skilful engineering guidance of Mr. (now Sir) G. L. Molesworth, K.C.S.I. (afterwards consulting engineer to the Government of India), Mr. W. F. Faviell being the



THE "DARK ARCHES" ON THE RAILWAY INCLINE AT KADU-GUNAVA, WITH BULLOCK CARTS ON THE ROAD BELOW.

[From a Photograph by Lieutenant R. W. Stewart, R.E.]

successful contractor. The total length is $74\frac{1}{2}$ miles, and, including a good deal of money unavoidably wasted in dissolving and paying off a company, it cost the colony, from first to last, as much as £1,738,413; but the line (on the broad Indian gauge of 5 ft. 6 in.) is most sub-

stantially constructed, including iron-girder bridges, viaducts, a series of tunnels, and an incline rising 1 in 45 for 12 miles into the mountain zone, which gives this railway a prominent place among the remarkable lines of the world.

Between 1867 and 1877, the railway was extended by Sir Hercules Robinson, on the same gauge, for 17 miles from Pérádeniya to Gampola and Náwalapitiya, rising towns in the Central Province; and by Sir William Gregory for $17\frac{1}{2}$ miles from Kandy to Mátalé, a town on the borders of the Central Province; while in the low country the same governor constructed a seaside line from Colombo, through a very populous district, to Kalutara ($27\frac{1}{2}$ miles), and also some $3\frac{1}{2}$ miles of wharf and break-water branches.

To Governor Gregory's time also belongs the inception and practical commencement of the extension from Náwalapitiya to the principality of Uva (67 miles), of which $41\frac{1}{2}$ to Nánu-oya were commenced in 1880, and finished in 1885. This line includes two long inclines, with gradients of 1 in 44, a tunnel 614 yards long, and the end of the section at Nánu-oya is 5,600 feet above sea-level, within four miles of the sanatorium and town of Nuwara Eliya (6,200 feet above sea-level). This extension, however, only touches the borders of Uva, one of the richest parts of the country, an ancient principality, which Sir Arthur Gordon separated from the Central, and constituted into a separate, province. Governor Gordon, after some doubt and delay at first, became thoroughly convinced of the importance of the work of extending the railway from Nánu-oya into Uva as far as Haputalé or Bandarawella (for 25 to 29 miles), as originally suggested in 1872 in the memorial drawn up by the author of this volume and presented to Sir William Gregory. It took some years of hard work on Sir A. Gordon's part to over-

come the objections of the Colonial Office, but at length sanction was obtained for the Haputalé section, and a commencement made in December 1888, while the spring of 1893 is expected to see the opening of the line.

In all there are now about 205 miles of railway open in Ceylon, besides the 32 miles into Uva nearly completed. Then there is the remainder of the line to Galle ($19\frac{1}{2}$ miles), with a section of $13\frac{1}{2}$ miles to Kurunegala from Polgahawella which is under construction. This will give a total of about 270 miles, due to be open by the beginning of 1894; but only the main line to the hill districts may be said to have been working long enough to afford a fair test of the traffic and the benefit to colonists, natives, and the country generally. The seaside line, however, has a wonderfully large passenger traffic, and when the extension is open to Galle, it will also secure profitable freight. With the revival of planting prosperity through tea, the Nānu-oya and Mátalé lines are now fully employed, although the division into Uva has to be adequately worked before a handsome return can be got for the outlay. Altogether 122 miles of railway are the free property of the colony, while the debt on the remaining 148 miles will not much exceed two millions sterling.

The main line to Kandy has more than repaid its cost in direct profit, apart from the immense benefits it has conferred. It is sometimes said that this railway and other lines in Ceylon, constructed as they were mainly for the planting enterprise and with the planters' money, confer far more benefit on the Europeans than on the native population. An answer to this statement, and an evidence of the immense educating power of our railways, is found in the fact that during the past twenty-five years over thirty-five millions of passengers have been carried over the lines, of whom all but an infinitesimal proportion were natives (Sinhalese and Tamils chiefly). On the

Kandy line alone it would have taken the old coach, travelling both ways twice daily and filled each time, several hundred years to carry the passengers who have passed between the ancient capitals and provinces in the past



VIEW ON THE MAHAVELIGANGA, AT GANGARUWA, NEAR KANDY.

quarter of a century. There was scarcely a Kandyan chief or priest who had ever seen, or, at any rate, stood by, the sea until the railway into the hill country was opened in 1867, whereas, for some time after the opening, the

interesting sight was often presented to Colombo residents of groups of Kandyans standing by the sea-shore in silent awe and admiration of the vast ocean stretched out before them and the wonderful vessels of all descriptions in Colombo harbour. The experience will probably be repeated next year in the case of grey-bearded Kandyans from the secluded glens of the Uva principality, while natives of the Southern Province will be enabled to travel by railway and see the Kandyan hill country for the first time.

In pointing out that the Dutch (equally with the Portuguese) constructed no roads, we must not forget that the former, true to their home experience, constructed and utilised a system of canals through the maritime provinces along the western and south-western coast. In this they were greatly aided by the backwaters, or lagoons, which are a feature on the Ceylon coast, formed through the mouths of the rivers becoming blocked up, and the waters finding an outlet to the sea at different points, often miles away from the line of the main stream. The canals handed over by the Dutch at first fell into comparative disuse, but within the last thirty years they have been fully repaired and utilised, and there are now about 175 miles of canal in the island.

With the construction of roads wheeled traffic became possible, and a large number of the Sinhalese speedily found very profitable employment, in connection with the planting industry mainly, as owners and drivers of bullock carts, of which there must be from 15,000 to 20,000 in the island, besides single bullock-hackeries for passenger traffic. In nothing is the increase of wealth among the natives more seen, in the Western, Central, and Southern Provinces, than in the number of horses and carriages now owned by them. Thirty-five to forty years ago to see a Ceylonese with a horse and conveyance of his

own was rare indeed; *now* the number of Burghers, Sinhalese, and Tamils driving their own carriages, in the towns especially, is very remarkable. The greater number of the horses imported during the past thirty years—the imports during that time numbering 17,000—have certainly passed to the people of the country.

CHAPTER III.

SOCIAL PROGRESS IN THE CENTURY.

Population—Buildings—Postal and Telegraphic Services—Savings Banks
—Banking and Currency—Police and Military Defence—Medical
and Educational Achievements—Laws and Crime.

HAVING thus described more particularly the vast change effected in British times by the construction of communications all over the island, we must touch briefly on the evidences of social progress given in our table (pages 9, 10).

The increase in population speaks for itself. It is very difficult, however, to arrive at a correct estimate of what the population was at the beginning of the century, as the Dutch could have no complete returns, not having any control over the Kandyan provinces. The first attempt at accurate numbering was in 1824, by Governor Barnes, and the result was a total of 851,440, or, making allowance for omissions due to the hiding of people through fear of taxation, etc., say about a million of both sexes and all ages. As regards the large estimate of the ancient population of Ceylon located in the northern, north-central, and eastern districts, now almost entirely deserted, we are by no means inclined, with the recollection of the famous essay on the "Populousness of Ancient Nations," to accept the estimates published by Sir Emerson Tennent and other enthusiastic writers. There can be no doubt, however, that a very considerable population found

means of existence in and around the ancient capitals of Ceylon, and in the great Tank region of the north and east, a region which affords scope for a great, though gradual, extension of cultivation by both Sinhalese and



SCENE ON THE NILWELLEGANGA : SOUTHERN PROVINCE.

Tamils in the future. At present it must be remembered that fully two-thirds of the population are found in the south-western districts and mountain zone, occupying a good deal less than half the area of the island, and

that there are large divisions, once the best-cultivated with rice, with *now* perhaps only half a dozen souls to the square mile.

As regards the number of inhabited houses, in 1824 there were not more than 20,000 with tiled roofs in the island; that number has multiplied manifold, but the half-million now given refer to all descriptions of inhabited houses, most of these being huts roofed with cocoanut leaves. The improvement in the residences of a large proportion of the people is, however, very marked: among one class the contrast between the old and modern homes has been well described as being as great as that between a begrimed native chatty (clay-vessel) and a bright English tea-kettle.

In the town of Kandy, which has now about 4000 dwelling-houses—the large majority substantially built, many of two stories—eighty years ago no one but the tyrant-king was allowed to have a tiled roof, or any residence better than a hut. In all the towns, and many of the villages of the island, substantial public buildings have been erected; revenue offices, court-houses, hospitals and dispensaries, prisons, schools, and post and telegraph offices. A great change for the better in respect of these institutions was effected by Governors Robinson and Gregory, and some of their successors.

Further evidences of the good done through a liberal and enlightened administration we find in an admirable internal postal service, made possible by the roads through which every town and village of any consequence is served; the total number of post-offices is 250 supplemented by nearly 40 telegraph stations, there being 1550 miles of telegraph wire in the island; while, in addition, the Postal-Telegraph Department has opened over 100 postal savings-banks in all the towns and important villages, with 15,000 to 20,000 accounts. This

is apart from a long-existing Government savings-bank, with about 13,000 depositors, owning deposits to the amount of perhaps two million rupees. There were about 130,000 telegraphic messages sent from Ceylon in 1891, and 64,000,000 of letters were received in and despatched from Ceylon in 1891. In the Post and Telegraph Departments altogether there are 670 employés.

With the rise of local trade and foreign commerce, chiefly through the export of planting products, came the need of banking and exchange facilities, and the call for these led to the establishment of a local Bank nearly fifty years ago. This was superseded, however, soon after, by the Oriental Bank Corporation, which gradually controlled by far the larger share of local business, so that the Ceylon branches became among the most important and profitable of this well-known Eastern bank. This gradually tempted its managers to depart from legitimate business by lending its capital too freely on planting, produce, and estates, and when this bank closed its doors in March 1884, nowhere was the shock more widely or acutely felt than in Ceylon. The effect and distrust among the natives would have been greatly aggravated were it not for the bold step taken by Governor Sir Arthur Gordon in extending an official guarantee to the bank's note issue, which eventuated in a reform long advocated by the author, namely, a Government note issue, much to the advantage of the people and the local exchequer. Already, the circulation of Government notes approximates to seven millions of rupees. Nor was any loss sustained from taking up the notes of the Oriental Bank, which, in fact, ought never to have closed its doors. The gradual liquidation of its affairs showed its solvency. The New Oriental Bank Corporation, founded upon the old Bank, prospered for some years, until owing to losses in Australia, Persia, the Straits, etc., it had to close in

June 1892. The plantations that fell into the Oriental Bank have been mainly taken over by a Limited Company, and are likely to be worked at a good profit. Ceylon suffered a good deal in the coffee era from plantation companies, chiefly through the "Ceylon Company, Limited," which, though so named, was really founded to take up bad business in Mauritius, where its heaviest losses were sustained. Other banks and agencies now working and generally prospering in Ceylon are those of the Chartered Mercantile Bank of London, India and China, the Bank of Madras, the National Bank of India, and (opened in 1892 on the fall of the New Oriental Bank) the Chartered Bank of India, London and Australia, and the Hong-Kong and Shanghai Banking Corporation. It may be mentioned that Sir Hercules Robinson gave Ceylon, in 1872, the benefit of a decimal currency in rupees and cents of a rupee, thus placing it in advance of India, where the cumbrous subdivisions of the rupee into annas, pice, and pies still prevail; in this respect Ceylon is indeed in advance of the mother-country.

We need scarcely say that, at the beginning of British rule, there was no post-office, and for many years after the service was of the most primitive, although expensive, kind; nor were there police or volunteer corps in those days; but there was an army corps (infantry, artillery, and even cavalry, altogether 5000 to 6000 men) kept up for many years, out of all proportion to the necessities of the case. The home authorities had the idea eighty years ago that the hidden wealth of Ceylon would enable a handsome annual subsidy to be paid to the treasury of the mother-country after all local expenses of government were defrayed. In place of that, so long as Ceylon remained a mere military dependency, it was a dead loss to, and drain on, the imperial treasury. By degrees, however, it was seen that four British and as many native

(Malay, Tamil, and Kaffir) regiments were not required, and, the force being cut down, it was decided by a commission, appointed by the Secretary of State in 1865, that Ceylon should bear all the military expenditure within its bounds, the local force being fixed at one regiment of British infantry, one of native (the Ceylon Rifles), and one brigade of artillery, with a major-general and staff. The Ceylon Rifles again were disbanded a few years later, in 1873.

The island, therefore, cost the Home Government nothing for about twenty years: on the other hand, the military force in Ceylon has been utilised very frequently for imperial and inter-colonial purposes. This will be alluded to later on, but we may mention here that Governor Gordon, in 1883, was instrumental, in view of the depression of the revenue resulting from the failure of coffee, in getting the annual military contribution reduced to 600,000 rupees in place of about a million formerly paid. The smaller amount was a very fair appraisalment of the responsibility of Ceylon, considering that no internal trouble beyond the capacity of the large body of police and volunteers can be feared. But with returning prosperity, through tea cultivation, to Ceylon came a renewed demand for an increased contribution, and now (1892) this has been fixed at £81,000 per annum, subject to revision in 1896.

In no direction has more satisfactory work been done in Ceylon by the British Government than through its Medical and Educational Departments. Here are branches which give the natives a vivid idea of the superiority of English over Portuguese or Dutch rule, and, to judge by the way in which hospitals, dispensaries, and schools are made use of, it is evident that the Sinhalese and Tamils value their privileges.

Of civil, lying-in, gaol, contagious diseases, and other

hospitals, with lunatic and leper asylums, and outdoor dispensaries, there are now over 200 in the island, in or at which about 200,000 persons are treated annually, more than two-thirds being, of course, for trifling ailments at the dispensaries. There are about 170 Colonial surgeons, assistants, health officers, vaccinators, etc., on the Government staff under the able direction of Inspector-General Kynsey, C.M.G.

In this connection, the Ceylon Medical College, founded by Sir Hercules Robinson in 1870, most heartily supported by his successor, Governor Gregory, and liberally endowed and extended by two wealthy Sinhalese gentlemen, Messrs. De Soyza and Rajepakse, is worthy of mention. Out of some 330 Ceylonese students entered, about ninety have qualified and obtained licences to practise medicine and surgery; about as many more are hospital assistants and dispensers; some have taken service under the Straits Government; while others have gone home to qualify for degrees at British Universities. The college has a principal and seven lecturers; and the Ceylonese have already shown a peculiar aptitude for the profession, surgeons of special, even of European eminence, having come from their ranks. We must mention here the good work done by the late Samuel Fisk Green, M.D., of the American Mission, in his medical classes for native students long before the Government College was founded, and in his translation and compilation of medical text-books, treatises, etc., in Tamil. In this way 87 natives were trained as medical practitioners by Dr. Green; while his works published in Tamil covered 4500 pages octavo. (See Appendix for reference to medical benefactors.)

In Education, generally, although there is still an immense deal to do, Ceylon is far in advance as compared with India. This has been chiefly through the agency of the several Christian Missions at work in the island, which

have done a noble work, more especially in female education; but Sir Hercules Robinson gave a great impetus to education by the establishment of an admirable grant-in-aid system, while Sir W. Gregory and his successors extended the work, multiplying especially Government vernacular schools. Latterly, special attention has been given to practical, and even technical, education: an Agricultural Training School has been started, a Technical Institute is to follow, and in connection with Experimental Gardens (under the auspices of the separate Botanic Gardens' Departments) in different parts of the country, much good is likely to be effected. Much is due to the past and present Directors of Public Instruction, Messrs. H. W. Green and J. B. Cull, M.A. Industrial schools for other branches are also encouraged. The great improvements in the educational, as well as in some other special, departments of recent years, is very much owing to the employment, as their heads, of public servants with local experience, in place of importing "fresh blood," a penchant which has cost the colony a great deal up to fifteen years ago. Under the previous system a half-pay naval officer has been sent out by the Colonial Office as Director of Prisons, and an impracticable theorist as Director of Public Instruction, while other departments have similarly suffered. At present the proportion in Ceylon is one pupil to every twenty of population; in India it is about one to every 120, while in Great Britain it is, we suppose, one to every five or six. In other words, while practically all children of school-going age are being served educationally in Great Britain, only one-fourth of those in Ceylon go to school, while not much more than 4 per cent. in India are being instructed.

Visitors always remark on the large number of the people in Ceylon, of the domestic servants especially, who understand and speak English, as compared with their

experience on the continent of India. In ancient times each Buddhist temple had its pansala or school; but although such pansalas are still kept up in some low-country districts, in the Kandyan country for many years the priests have neglected their duty in teaching and other respects. They are entirely independent of the people through the endowments in land left them by the Kandyan



VIEW ON THE MAHAVELIGANGA, NEAR KANDY.

[From a Photograph by Herbert.]

kings, and these have in this case proved a curse instead of a blessing to the priests themselves, as well as to the people. Sir Arthur Gordon in place of boldly making the attempt to utilise a large portion of these "Buddhist Temporalities," hitherto worse than wasted, for popular vernacular and technical instruction, devised an ordinance to secure a check on the priests and lay managers; but not much result has followed or can be anticipated; and it is hoped

that ere long, most of the property will be utilised by express ordinance for the benefit of the mass of the people in promoting vernacular and perhaps technical education. In the low-country there are few endowments. [See Appendix, No. VII.]

Educated Ceylonese are now, in many cases, finding it difficult to secure openings in life suited to their taste; the legal profession has hitherto been the most popular, it being occupied almost entirely by them as notaries, attorneys or solicitors, advocates, barristers, and even judges. In this way Sir Richard Morgan, born and educated in Ceylon, rose to be attorney-general, chief justice, and knight. Only last year a Sinhalese gentleman retired as judge of the Supreme Court after many years' service; Sir Samuel Grenier, knight, followed Sir R. Morgan to high office, and other Ceylonese fill important offices as Crown counsel, county judges, magistrates, leading barristers, and solicitors.

The fondness of the Sinhalese for litigation is proverbial; their cases in court abound, even to disputing about the fractional part of a coconut-tree. The revival of native Village Councils (Gansabawa), by Sir Hercules Robinson, has done much to prevent litigation in the expensive law courts, with which nearly 400 advocates and proctors are connected. Crime generally is represented by a daily average of about 2500 convicted prisoners in the gaols of the island, a large number being for petty thefts and assaults. The total of convictions in all the courts in 1891 was over 20,000. Not 1 per cent. of these are women, the explanation being that the native women do not "drink" nor "gamble," the two chief causes of crime among the Sinhalese and Tamils. The wearing of open knives (now forbidden by law) and the habit of perjury aggravate crime among the Sinhalese. About 150 natives lose their lives annually from snake-bites and wild beasts—

bears, cheetahs, elephants, buffaloes, etc. ; while more than that number are killed by falling from trees—coconut palms chiefly. The cost of the administration of justice for the criminal class—police, courts, gaols, etc.—cannot be less than £80,000 per annum. A penal code after the fashion of that of India was arranged for by Sir Bruce Burnside, as Chief Justice of the island, and successfully introduced in 1885 ; and codification of the civil laws—an urgent want—has since been brought forward by Government, and will, it is hoped, ere long be consummated. A successful system of Cart and Servants' Registration is at work, the credit of which is due to Sir G. W. R. Campbell, K.C.M.G., who also reorganised the police to take the place of the Ceylon Rifle Regiment disbanded in Governor Robinson's time.

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CHAPTER IV.

LEGISLATIVE AND GENERAL IMPROVEMENTS UNDER THE RULE
OF SUCCESSIVE BRITISH GOVERNORS—THE NEED OF PRO-
MOTING CO-OPERATION AND GOOD FEELING BETWEEN
DIVERSE CLASSES AND RACES.

AMONG the political and social reforms introduced into Ceylon by the British during the present century may be mentioned the abolition by the first Governor, the Hon. F. North, of torture and other barbarous punishments abhorrent to English feeling, and the relaxation during the time of his successor of the severe laws against Romanists; this was twenty years before Catholic Emancipation was granted in England. Trial by jury was first introduced by a new charter of justice in 1811; but it was not till 1844 that all caste and clan distinctions in the jury-box and all slavery were finally abolished.

A new and much improved charter of justice, the establishment of a Legislative Council with ten official to six unofficial members,* an order in Council abolishing compulsory labour, the establishment of a free press, the

* Sir Arthur Gordon in 1889 got the number of unofficials increased to eight, their term of office not to last beyond five years, so as to extend the educating process of assisting in legislation among the Ceylonese; the members are nominated by the Governor with the aid of various public bodies and opinions, through the press, to represent (1) the Low-country Sinhalese, (2) the Kandyan Sinhalese, (3) the Tamils, (4) the "Moormen" (Arab descendants, etc.), (5) the Eurasians (Burghers), (6) the Planters, (7) the Merchants, and (8) the General European community.

relinquishment of the cinnamon monopoly, the institution of a Government savings-bank and the Colombo Academy, all served to mark the years between 1830 and 1840, when such enlightened Governors as Sir Robert Wilmot-Horton, and the Right Hon. J. H. Stewart-Mackenzie, administered Ceylon affairs.

During the next decade a tax on fishermen of one-tithe of all the fish taken was abolished; the bonds of slavery were finally removed; great efforts were made to extend education and medical relief to the masses, and the important planting industry took its first start; a wise and most useful law for the improvement of roads, exacting six days' labour per annum, or its value, from all able-bodied males between eighteen and fifty-five years of age, was passed; the last national disturbance of the Kandians was quickly suppressed without the loss of a single life; the colony passed through a commercial and financial crisis, and on the ruins of the Bank of Ceylon the Oriental Bank Corporation arose.

In 1850 there was commenced in Ceylon the most successful service with carrier-pigeons ever known in connection with the press. The *Ceylon Observer* carrier-pigeons travelled regularly between Galle (the mail port) and Colombo with budgets of news, including Crimean and Indian Mutiny war news, for over seven years, till 1857, when they were superseded by the telegraph.* All official connection between the British Government and Buddhism was closed in 1855, the year in which Sir Henry Ward commenced to rule, and a new impetus was given to Native and European industry by useful legislation. The restoration of irrigation works, the construction of roads, the commencement of a railway, the reorganisation of the public service, the introduction of penny postage (with a halfpenny rate for newspapers), the establishment

* See Correspondence published in Appendix No. XIII.

of steam navigation round the island and of telegraph communication between the principal towns, the reform of the Kandyan marriage laws, and the abolition of polyandry, also marked this period.

The following decade, 1860–70, is chiefly distinguished for Governor Sir Hercules Robinson's energetic and most useful administration, with measures for the civil registration of marriages, births, and deaths, and of titles to land; the opening of the railway to Kandy; the publication by the people of Sinhalese and Tamil newspapers; the formation of the towns of Colombo, Kandy, and Galle into municipalities, with Boards composed of elected and official members; the revival of *gansabhāwa*, or village councils; the adoption of a grant-in-aid scheme for promoting the education of the people; the abolition of export duties; the founding of the Ceylon Medical School; and the visit in 1870 of H.R.H. the Duke of Edinburgh.

The next decade in the history of Ceylon has its interest in the very prosperous, busy, and successful government of Sir William Gregory. The first systematic census of the population was taken in 1871. Measures were adopted for the conservation of forests and for preventing the extinction of elk, deer, elephants, etc.; the registration of titles was provided for; Colombo, Kandy, and Galle were much improved, arrangements for a good water-supply to each town being made; while for the sanatorium (Nuwara Eliya) and seven other minor towns a bill was passed establishing Local Boards on the elective principle; the *gansabhāwa*, or village councils, were improved and encouraged; an immense impetus was given to rice cultivation, 100 village tanks being repaired every year, besides larger works; the North-Central province, in purely native interests, was formed, and the great lines of communication between the north and east were per-

manently opened ; Anurádhapura, the ancient capital, was cleared of jungle, and rendered a healthy revenue station ; gaols, hospitals, and schools were greatly improved, gaol discipline being put on a new footing ; pilgrimages on a large scale injuriously affecting public health were discouraged and practically stopped ; scientific education was provided for ; temperance was promoted by the reduction of the number of licences granted to grog-shops ; gas lighting was introduced into Colombo ; the stoppage of all payments from the revenue in aid of religion (" Disestablishment ") was arranged for ; the industry in the growth of new products—tea, cinchona, and cacao—took its first systematic start ; an enactment dealing with service tenures in connection with temples was passed ; road and railway extension were actively taken in hand ; a public museum was erected and well filled at Colombo ; and in 1875 H.R.H. the Prince of Wales visited the island, and laid the first stone of the Colombo Breakwater, designed and constructed by Sir John Coode, and since successfully completed (in 1886) by the resident engineer, Mr. Kyle. A Northern Arm and Graving-dock for the Imperial Navy (in supersession partly of Trincomalee), as well as for commercial purposes, though fully supported by the Admiralty, is only now (1893) about to be commenced.

Soon after Sir James Longden assumed the reins of government a period of depression, owing to the failure of coffee, set in, though in 1877-9 very large revenues were collected.

A volunteer corps was established under Governor Longden's patronage ; and the first section of the Uva railway to Nanu-óya was commenced by means of a public loan ; but almost the only important work undertaken out of revenue during this Governor's rule of six years was an extensive lunatic asylum, costing R600,000, and deemed beyond the requirements of the colony, being built on a



TRINCOMALEE HARBOUR.

scale likely rather to astonish than benefit poor rural Sinhalese lunatics, when taken from jungle huts to be lodged in brick and mortar palaces. An increase to the fixed expenditure of the Colony made in 1878 in Governor Longden's time, including an addition of R10,000 to his own salary,* was to say the least injudicious, although sanctioned by the Legislature, and this was shown by the revenue depression which set in from the following year onwards.

Sir Arthur Gordon assumed the Government of Ceylon at the end of 1883, and continued to direct affairs till the middle of 1890. A period of renewed activity in useful legislation and material improvement was eagerly anticipated; but the new Governor, indefatigable in his work, was much hampered by financial depression. Still, no less than one hundred and sixty-three ordinances were added to the local statute-book in the six years, though only a few of these were of first-class importance, and two of them—a Muhamadan (Polygamous) Marriage Registration Act, and the Buddhist Temporalities measure—were decidedly backward steps in their conception and carrying out; but the great acts and works of this Governor are found in his persistent advocacy of railway extension into Uva; his guaranteeing the Oriental Bank notes and so preventing a financial crisis, and his establishment of a Government note issue which is every year becoming a greater financial success, now giving an income of over R200,000 a year. Quite as noteworthy was Sir Arthur Gordon's administration for an unprecedented expenditure on Irrigation Works, and liberal votes for roads (two hundred and sixty-one miles opened), bridges, hospitals, public instruction, and for railway extension in the low-

* Making the salary of the Governor of Ceylon R80,000 per annum. Rather a contrast to that of the Dutch Governors, which was £30 per month (besides rations and allowances), but then they were expected to make a fortune in other, not to say corrupt and secret, ways!

country along the sea-side to Bentota. The province of Ūva was created out of the Central province in 1886, and in 1889 Sabaragamuwa was separated from the Western and (rather unwisely) made a new province. The Colombo Breakwater, on Sir John Coode's admirable design, was completed, and the Harbour has since been fully utilised as the great steamer-calling and coaling port of the East.

The great failure of Sir Arthur Gordon was in not promoting and cementing that good feeling between the governing and governed classes, and especially between the different races and ranks, embraced in the very varied community of Ceylon, which Sir William Gregory, above all his predecessors, was successful in fostering. In the time of the latter Governor, Europeans, Burghers (European descendants), and natives, co-operated more cordially, and supported the Government more trustfully, than at any period before or since. His successor (Sir James Longden) was too antiquated and sleepy in his ideas to promote this desirable state of feeling, or any other movement beyond the bounds of red-tape official routine; while Governor Gordon, by arbitrary, inquisitorial proceedings early in his term of government, by his favour of ceremonial supported by high-caste natives, and by ill-judged special patronage of Buddhist priests at his levees, etc., created distrust, and undid much of the good effected during 1872-77. A frank, genial, straightforward administrator, free of all official prejudice or predilection for outward ("caste") show, recognising merit wherever it is to be found, and good work for the benefit of the body-politic, no matter by whom promoted, has nowhere a more encouraging or fruitful field to work in than Ceylon, and this is why, as has often been said, a governor, straight from "the free air of the British House of Commons," has proved a bright success in this

first and most important of Crown Colonies. It may not be known to people in England, interested in our tropical dependencies, how much evil cliques—official and otherwise—promoted to some extent by “club” life, are working, and are likely still further to work, in India and Ceylon. The Englishman carries his “club” with him—it has been said—wherever he goes, and has the undoubted right to do so; but it is a question whether in Crown dependencies “public servants,” not excluding the Queen’s Representative, drawing their salaries and pensions from taxes paid by the people at large, have the right to patronise clubs which practically exclude all Her Majesty’s native-born subjects, without exception, no matter what their merit or degree;* and still more whether occult influences should dictate (through aide-de-camps and private secretaries), who are to be honoured, if not received, at “Queen’s House.” It was to the credit of Sir William Gregory that he never allowed himself to be restricted by the sneers of would-be colonial “society” dictators, but sought out and marked by his attentions merit and good work, wherever he found them. In this way Sinhalese, Tamils, and Burghers (and not merely a few “high caste” families favoured by narrow-minded officials) found their industry and integrity noticed by the Governor, who again had at his table, as honoured guests, the heads and chief workers in the various Missions and principal Educational Institutions, whether Christian or secular, Hindu or Buddhist, showing his personal interest in every thing or person calculated to advance the colony and people committed to his care by Her Most Gracious Majesty the Queen.

Sir Arthur Gordon’s administration was marked by one

* This was written in 1887, and since then (1891-92) some of the chief authorities in India have expressed views similar to the above in respect of public servants and institutions which are regulated by distinctions of race.

very notable event in the Queen's Jubilee, which was fittingly observed in June 1887 as related farther on. The death, early in 1889, of Lady Gordon, universally esteemed as she was, excited deep regret in the Colony. The "Gordon Gardens," inaugurated in the Fort Ward, Colombo, will keep alive the memory of Sir Arthur and Lady Hamilton Gordon in Ceylon for many years to come.

It is interesting to compare the Revenue, Expenditure, Public Debt incurred, and Sale of Crown Lands under successive governors. The periods of activity and energetic administration were those of Governors Ward, Robinson, Gregory, and Gordon. The returns are as follow :—

REVENUE AND DEBT FOR SUCCESSIVE GOVERNORS.

	Annual Revenue.		Public Debt.
	Minimum.	Maximum.	Imposed.
1850-54 Sir G. Anderson	£408,000	429,000	—
1855-60 Sir H. Ward ...	476,000	767,000	—
1861-65 Sir C. MacCarthy	752,000	978,000	£800,000
1866-71 Sir H. Robinson	925,000	1,124,000	250,000
1872-76 Sir W. Gregory	1,174,000	1,467,000	600,000
1877-82 Sir J. Longden	1,216,000	1,702,000	1,250,000
1883-89 Sir A. Gordon	1,240,000	1,540,000	750,000

Here more particularly is the total amount of revenue received within each administration :

TOTAL REVENUE COLLECTED BY SUCCESSIVE GOVERNORS.

June—July.

Sir Henry Ward (1854-60)	£30,600,000.
Sir Hercules Robinson (1865-71)	£60,400,000.
Sir Wm. Gregory (1871-77)	£80,750,000.
Sir Jas. Longden (1877-83), 7 years	£85,619,310.
Sir Arthur Gordon (1883-90)	£95,897,760.

Subtracting the extra year, Sir Arthur Gordon actually received less revenue in six years than did his predecessor, whose somewhat somnolent administration has been excused on account of the want of funds !

Here, finally, is how the alienation of CROWN LANDS, under successive Governors, compares :

	Acres.	£	Average per Acre.
Governor Sir H. Ward in six years, 1855 to 1860, sold	111,596	for 199,884	1 15 9½
Governor Sir Charles MacCarthy and ... General O'Brien in five years, 1861 to 1865, sold	156,893	for 307,117	1 19 1½
Governor Sir Hercules Robinson in six years, 1866 to 1871, sold	226,926	for 341,562	1 10 1
Governor Rt. Hon. Sir W. H. Gregory in six years, 1872 to 1877, sold	269,905	for 612,036	2 5 4
Governor Sir Jas. Longlen in six years, 1878 to 1883, sold	148,836	for 375,395	2 10 5¼
Governor Sir Arthur Gordon in 1884-89, sold	114,828	for 217,911	1 18 0
Total : acres 1,028,384 £2,053,905 £1 19 11½			

Sir Arthur Elibank Havelock, K.C.M.G., succeeded to the Government of Ceylon in May 1890, and while continuing the active beneficial policy of his predecessor in respect of railway extension and other desirable public service, His Excellency after a few months' experience chose to recommend the abolition of the "Paddy" rent or tax, the only branch of Land Revenue in the island. Unfortunately this levy on rice cultivation was removed without touching the corresponding Customs duty on imported rice, so establishing Protection in its worst form. This abolition was given effect to by Lord Knutsford as Secretary of State, in opposition to the opinion of nearly the whole Civil Service and four previous Governors of Ceylon, the last of whom, Sir Arthur Gordon, had prepared the way for the removal of all the obnoxious features of the Paddy tax without destroying the just principle of an internal rice levy balancing the Customs duty. This subject is fully dealt with in another chapter.

CHAPTER V.

NATIVE AGRICULTURAL AND MANUFACTURING INTERESTS.

Paddy (rice) Cultivation—Cinnamon—Coconut, Palmyra, Kitul, Areca-nut, and other Palms—Essential Oils—Tobacco—Cotton—Sugar-cane—Other Fruit-trees and Vegetables—Natural Pasture—Local Manufactures.

WHETHER or not Ceylon was in ancient times the granary of South-Eastern Asia, certain it is that long before the Portuguese or Dutch, not to speak of the British, era, that condition had lapsed, and so far from the island having a surplus of food products, the British, like their European predecessors, had to import a certain quantity of rice from Southern India to feed their troops and the population of the capital and other chief towns.* There can be no doubt as to the large quantity of rice which could be grown around the network of tanks in the north and east, which have been lying for centuries broken and unused in the midst of unoccupied territory.

Driven from the northern plains by the conquering Tamils, the Sinhalese, taking refuge in the mountain zone more to the south and west, found a country in many respects less suited for rice than for fruit and root culture; but yet, under British as under native rule, *rice* or *paddy-growing* continues to be the one most general and favourite occupation of the Sinhalese people, as indeed

* Old Sinhalese records show that rice was imported into Ceylon from the Coromandel Coast in the second century before Christ.

it is of the Ceylon Tamils in the north and east of the island. Agriculture, in their opinion, is the most honourable of callings, and although in many districts fruit and root—that is, garden—culture would prove more profitable, yet the paddy field is more generally popular.

Nowhere in Ceylon are there tracts of alluvial lands so extensive as those which mark the banks and deltas of rivers in India, and the average return of rice per acre in Ceylon, under the most favourable circumstances, is considerably below the Indian average. It was the opinion of one of the most experienced of Ceylon civil servants—Sir Charles P. Layard, who served in the island from 1829 to 1879—that the “cultivation of paddy is now the least profitable pursuit to which a native can apply himself; it is persevered in from habit, and because the value of time and labour never enters into his calculations.” This view has since been contested (in 1885) by an experienced revenue officer, Mr. E. Elliott, who shows that rice cultivation is fairly profitable; but his calculations refer chiefly to select districts, rather than to the island generally. In some parts of the western, in the Matara division of the southern, and in the Batticaloa district of the eastern provinces, very profitable rice fields are the rule, and large crops are also grown under irrigation in the north-central province. On the principle, however, of buying in the cheapest and selling in the dearest market, it would appear that the rest of the rice cultivators in Ceylon could more profitably turn their attention to plantation and garden products, such as coconuts, areca or betel-nuts, pepper, cinnamon, nutmeg, cacao, tea, cardamoms, and fruits of all tropical kinds (even putting tea on one side for the present); then, selling the produce to advantage, they could buy rice from southern and northern India and Burmah more cheaply than they can produce it. But it is impossible, even if it were politic—which we doubt—to



A COCONUT PLANTATION.

revolutionise the habits of a very conservative people in this way ; and therefore, so soon as the sale of forest land to planters, and the introduction of capital for the planting enterprise, put the Government in possession of surplus revenue, Sir Henry Ward acted wisely in turning his attention to the restoration and repair of such irrigation works in the neighbourhood of population as he felt would at once be utilised for the increased production of grain. In this way he changed a large extent of waste land into an expanse of perennial rice culture, for the benefit of the industrious Mohammedans and Hindus of the Batticaloa district in the Eastern province. Similarly, he spent large sums for the benefit of the Sinhalese rice cultivators in the southern districts.

Sir Hercules Robinson conceived a statesmanlike law, by which expenditure on irrigation works, chiefly village tanks, on terms far more liberal to the people than any offered in India, formed a part of the annual budget. Most cordially was this policy supported by his successor, Sir William Gregory, who, moreover, entered on an undertaking of greater magnitude than any previously recorded in British times : namely, the formation of a new province around the ancient capital of Ceylon, and the restoration of tanks and completion of roads and bridges within its bounds, sufficient to give the sparse Sinhalese population every advantage in making a start in the race of prosperity. At a considerable expenditure, spread over four or five years, this was accomplished, and a population of some 60,000 Sinhalese and Tamils were thereby more directly benefited than they had been by any of their rulers, native or European, for several centuries back. Curiously enough, not the Sinhalese but the Tamils—who have been called “the Scotchmen of the East,” from their enterprise in migrating and colonising—are likely to take chief advantage of the expen-

diture in this north-central region—an expenditure continued by Governor Longden, and to a still more marked degree by Governor Gordon, who entered on very large and important works in restoring the Kalawewa and Yodi-ella Irrigation tanks and channels. The formation of a permanent Irrigation Board for the colony, with a settled income in a proportion of the land revenue, was another step of the present governor in the interests of rice culture, commendable so long as the Paddy tax was continued ; but utterly indefensible in the form adopted by Governor Havelock, who having no land revenue, takes his Irrigation votes out of the Customs duty paid chiefly by townspeople and plantation coolies. The amount expended on Irrigation Works during the twenty-three years, 1867 to 1890, the end of Sir Arthur Gordon's term of government, is as follows :—

SPENT ON IRRIGATION WORKS BY GOVERNORS.

Sir H. Robinson	1867-71	R630,921.
Sir W. Gregory	1872-77	R1,650,944.
Sir J. Longden	1878-83	R1,379,947.
Sir A. Gordon	1884-90	R3,200,000.
Total in 23 years		<u>R6,861,812</u>

Latterly, Governor Gordon expended all the net proceeds of the Paddy rent or tax on Irrigation Works. Special encouragement to other branches of agriculture in certain districts would do much good ; but as yet Government and its revenue officers have not even established district Agricultural Shows for produce and stock, with suitable prizes.

The effect of the liberal policy above described, of successive governors, from Sir Henry Ward on to Sir Arthur Gordon, has undoubtedly been to bring a far larger area under grain cultivation now than was the case at the beginning of the century but it is impossible,

in the absence of a cadastral survey, to give the exact extent.

It is estimated that there are now 700,000 acres under rice or paddy, and about 150,000 under dry grain, Indian corn, and other cereals. And the striking fact is that, so far from the import of grain decreasing as the local production has extended, the reverse has been the case. In this, however, is seen the influence of the expanding planting enterprise: fifty years ago, when coffee-planting was just beginning in Ceylon, the total quantity of grain required from India was an annual import of 650,000 bushels; now, it is as high as between six and seven million bushels. The import in 1877, the year of the Madras famine, when Ceylon planters had to provide for 170,000 fugitives from Southern India, besides their usual coolie labour force, amounted to no less than 6,800,000 bushels.

The disposal of the increasing local production simultaneously with these imports is explained by the rapidly increasing population in the rural districts, and the much larger quantity of food consumed in a time of prosperity. In the early part of the century the average Sinhalese countryman consumed, probably, only half the quantity of rice (supplemented by fruit and vegetables) which he is now able to afford. Our calculation is that about three-fifths of the grain consumed is locally produced against two-fifths imported.*

Turning from the main staple of native agriculture to garden produce, we have to note that, while the Dutch monopolies in cinnamon, pepper, etc., were probably worked at a loss to the Government, even with forced

* For further information see paper on "Food Supply of Ceylon," by the author, in "Ferguson's Ceylon Handbook and Directory," and also papers on "Grain Taxation in Ceylon," quoted by Sir William Gregory in despatches to Earl Carnarvon.

labour at their command, the export of the cinnamon spice was insignificant as compared with what it has become under the free British system. There can be no doubt that Ceylon *cinnamon* is the finest in the world, celebrated from the middle of the fourteenth century according to authentic records, and one of the few products of importance indigenous to the island. It was known through Arab caravans to the Romans, who paid in Rome the equivalent of £8 sterling per pound for the fragrant spice. Ceylon (called by De Barras the "mother of cinnamon") has, therefore, well earned the name "Cinnamon Isle," whatever may be said of its "spicy breezes," a term originally applied by Bishop Heber, in his well-known hymn, to Java rather than to Ceylon. The maximum export attained by the Dutch was in 1738, when 600,000 lb., valued at from 8*s.* 4*d.* to 17*s.* 8*d.* per lb., was sent to India, Persia, and Europe from Ceylon. In the commercial season, 1881-82, Ceylon sent into the markets of the world, almost entirely through London, as much as 1,600,000 lb. of cinnamon quill bark, and nearly 400,000 lb. of chips, the finest bark being purchasable at the London sales for from 2*s.* 6*d.* to 3*s.* per lb.; while in season 1885-86 the export was 1,630,000 quill and 550,000 lb. of chips, and the price has fallen almost 50 per cent. in six years. In 1891, the export of cinnamon was as high as 2,309,774 lb. in bales and 588,264 lb. chips, but the London price is so low as to leave only a small margin for the cultivator. The above quantity is yielded by an area of about 35,000 acres, cultivated entirely, and almost entirely owned, by the people of Ceylon.*

Of far greater importance now to the people, as well as to the export trade of the island, is its *Palm cultivation*, which has enormously extended since the time of the

* See paper and engravings in Appendix, No. III.

Dutch, especially in the maritime districts. European capital has done much in turning waste land into coconut plantations; but there is, also, no more favourite mode of investment for the native mercantile, trading, and industrial classes of the people (Sinhalese and Tamils), who have greatly increased in wealth during the past fifty years, than in gardens and estates of coconuts, arecas, palmyras, and other palms and fruit trees. Within the Dutch and British periods a great portion of the coast-line of Ceylon (on the west, south, and east), for a breadth varying from a quarter of a mile to several miles, and extending to a length of 150 miles, has been planted with coconut palms. Afterwards, in British times, a great extension of planting took place on the coast of the north-west province, and in the northern and eastern coast districts. Then, twenty to thirty years ago, attention in Colombo was turned to inland districts, such as the delta of the Maha-oya (river), and these have been planted with coconuts as far as thirty miles from the coast. More recently, a great deal of coconut cultivation has taken place at Madampe and Chilaw on the north-west, and also around Anuradhapura in the north-central province, where there are now about 100,000 palms planted, nearly half of them in bearing, thanks very much to Mr. Ievers' energetic encouragement of native agriculture in all forms. In the Jaffna peninsula, again, the natives have chiefly planted the equally useful palmyra. The palms, together with a little rice and a piece of cotton cloth, are capable of supplying most of the wants of the people.

It has been commonly remarked that the uses of the coconut palm * are as numerous as the days of the year. Percival, early in this century, relates that a small ship from the Maldivé Islands arrived at Galle which was

* See "All about the Coconut Palm," published by A. M. & J. Ferguson, Colombo.

entirely built, rigged, provisioned, and laden with the produce of the coco-palm.* Food, drink, domestic utensils, materials for building and thatching, wine, sugar, and oil are amongst the many gifts to man of these munificent trees. Unlike the other trade staples, tea, coffee, cinchona bark, and cinnamon, by far the largest proportion of the products of the coconut palm—nuts, oil, arrack (intoxicating spirit), leaves for thatch, fences, mats and baskets, timber, etc.—are locally utilised.

Arrack (in varying quantities, according to the demand in the Madras Presidency) is exported, but the export is not to be compared with the large local consumption, which unfortunately increases with the increasing wealth of the people. The British are blamed for regulating and protecting the arrack and liquor traffic, but the consumption was pretty general before the British came to Ceylon. It is evident, though, that her taverns have been too freely multiplied, and the Ceylon authorities should take a leaf out of the Dutch policy in Java, where the consumption of intoxicating liquors among natives is very rigidly restricted. Our calculation is that seven millions of rupees are spent by the people of Ceylon on intoxicants, against not much more than a tenth of this amount devoted to education by the people, missions, and the government. An experiment in placing the sale of such drugs as opium, and especially Indian hemp and its allies, under the same restrictions as in England, might well be tried in Ceylon.

A good many millions of coconuts are annually exported, but the chief trade is in coir fibre from the husk, and still more in the oil expressed from the kernel of the nut, used in Europe as a lubricator, for soap-making,

* The food value of the coconut is not generally understood; some years back the crew of a wrecked vessel cast away on a South Sea island subsisted for several months on no other food than coconuts and broiled fish, and added to their weight in that time.

and dressing cloths, and (partially) for candle-making and lighting purposes; African palm oil and petroleum are its great rivals. The average value of the products of the coconut palm exported may be taken at about the following figures: oil, £500,000; coir, £60,000; arrack, £20,000; "koppara" (the dried kernel sent to India for native food, and latterly to France to be expressed), £100,000; "punac" (the refuse of the oil, or oil-cake, used for cattle food), £20,000; nuts, £15,000; miscellaneous products, £5000; making a total of over £720,000; while the value of the produce locally consumed must be nearly one and a half million sterling per annum, and the market value of the area covered with coconuts rather over than under twelve millions sterling. The local use of coconuts is sure to increase with railway extension and the development of the interior of the island. There are perhaps thirty millions of coconut palms cultivated in Ceylon, covering about 500,000 acres, all but about 30,000 acres being owned by natives themselves. The annual yield of nuts cannot be much under 500 millions, allowing for trees devoted to "arrack," the sap being collected to ferment into the spirit rather than allowed to form fruit. There are nearly 2000 native oil-crushers driven by bullocks, apart from steam establishments in Colombo, Negombo, etc., owned by natives as well as Europeans, while the preparation of the fibre affords occupation to a large number of the people.

After the coconut tree, the palmyra (*Borassus flabelliformis*) has been regarded as the richest plant in the East. Both require from eight to twelve years to come into bearing, but they are supposed to live from 150 to 300 years.* By many the palmyra is thought a richer tree than the coconut, and it is especially adapted to the drier regions of the north and east of the island. It is

* See William Ferguson's Monograph on "The Palmyra Palm."

estimated there are eight millions of palmyras owned by the people in the Jaffna peninsula, the edible products of which supply one-fourth of the food of 300,000 inhabitants. The Tamil poets describe 800 different purposes to which the palmyra can be applied, and their proverb says "it lives for a lac * of years after planting, and lasts for a lac of years when felled." The timber is prized for house-building purposes, especially for rafters, being hard and durable. Besides there being a large local consumption, as much as £8000 worth is still annually exported from Ceylon, while of jaggery sugar about 20,000 cwt. are made from this palm, the cultivation of which covers 40,000 acres, yielding perhaps seventy millions of nuts annually; this nut is much smaller than the coconut. The cultivation of the palmyra by the natives or by prison labour under Government auspices on the sandy wastes in the north, north-west, and south-east of the island has been strongly advocated: it is very easy and inexpensive; an outlay of fourteen rupees per acre for ten years would be sufficient, and then the jaggery would begin to yield returns. A beginning has been made in the Hambantota district and the North Central province.

The kitul or jaggery palm (*Caryota urens*), known also as the bastard sago, is another very valuable tree common in Ceylon. Jaggery sugar and toddy wine are prepared from the sap, the best trees yielding 100 pints of sap in twenty-four hours. Sago is manufactured from the pith, and fibre from the leaves for fishing-lines and bow-strings, the fibre from the leaf-stalks being made into rope for tying wild elephants. Of the fibre, from £3000 to £7000 value is exported annually; of the jaggery sugar, £2000 worth. The quantity used in the country is very great. This palm is found round every Kandyan's hut; indeed it has been said by Emerson

* A lac or lakh equals 100,000.

Tennent that a single tree in Ambegamua district afforded the support of a Kandyan, his wife, and children. The area covered is, perhaps, equal to 30,000 acres. The trunk timber is used for rafters, being hard and durable.

The cultivation of the *Areca catechu* (which is compared to "an arrow shot from heaven" by the Hindu poets) was always one of the chief sources of the Ceylon trade in ante-British times. In the Portuguese era great



A COCONUT CLIMBER.

quantities of the nuts were exported, and these formed the chief medium of exchange for the proportion of grain which the natives of Ceylon have for centuries drawn from Southern India. The Dutch esteemed the areca-nut a very great source of revenue, and they made an exclusive trade of it. They exported yearly about 35,000 cwt. About the same quantity was annually shipped between 1806 and 1813. Of recent years as many as from 100,000 to 150,000 cwt. of nuts have been shipped in one year.

The export is almost entirely to Southern India. An areca-nut tree requires six years to come into full bearing. It grows all over the low country and in the hills up to an elevation above sea-level of between 2000 and 3000 feet. Some coffee estate proprietors around Kandy in the early days planted areca-nuts along their boundaries, thereby forming a capital division line, and the cultivation has anew attracted the attention of colonists in recent years, especially in the Matale and Udagama districts.

The chief areca gardens owned by natives are, however, to be found in the Kegala district. The home consumption is very large, and the area covered by the palm must be equal to 65,000 acres. The annual value of the exports of areca-nut produce is from £60,000 to £100,000.

There are numerous other palms, more especially the



TALIPOT PALM IN FLOWER.

magnificent talipot (*Corypha umbraculifera*), which flowers once (a grand crown of cream-coloured, wheat-like blossom twenty feet high) after sixty or eighty years, and then dies, and which is freely used for native huts, umbrellas, books, etc.; the heart also being, like that of the sago palm, good for human food.

The bread-fruit tree, the jak, orange, and mango, as

well as gardens of plantains and pine-apples, melons, guavas, papaws, etc., might be mentioned among products cultivated and of great use to the people of Ceylon; in fact, there is scarcely a native land-owner or cultivator in the country who does not possess a garden of palms or other fruit trees, besides paddy fields. The total area cultivated with palms and fruit trees cannot be less than from 800,000 to 830,000 acres (in addition to 100,000 acres under garden vegetables, yams, sweet and ordinary potatoes, roots, cassava, etc.); and although by far the major portion, perhaps four-fifths, of the produce is consumed by the people, yet the annual value of the export trade in its various forms, from this source, averages quite three-quarters of a million sterling, against less than £90,000 at the beginning of the century. Among food products recently added to the list of easily grown fruits and vegetables (by Dr. Trimen, Director of the Botanic Gardens, and his assistant Mr. Nock, of the Hakgalla Gardens), are a cabbage and some others from China; the tree-tomato, chocho, a parsnep, and a small yam, all introduced from the West Indies, and already very popular with the Sinhalese, especially of the Uva province. Mr. Nock has also introduced several new English varieties of potatoes. In this connection a new potato, brought from Peru by Mr. Arthur Sinclair, may be a success in Ceylon.

Besides coconut oil, there is an export of essential oils expressed from citronella and lemon-grass, from cinnamon and cinnamon leaf, which, valued at £25,000 to £30,000, is of some importance to a section of the community.

Of more importance to the people is their tobacco, of which about 25,000 acres are cultivated, the greater part of the crop being consumed locally, though as much as 50,000 cwt. of unmanufactured leaf, valued at £150,000, are exported to India. Of late years European planters

have given some attention to the cultivation of tobacco, as well as cotton, but without much success.

The natives have always grown a little cotton in certain districts, and at one time a good deal of cotton cloth was manufactured at Batticaloa, but the industry has almost entirely ceased, being driven out by the cheapness of Manchester goods. The establishment of cotton mills at Colombo, and the consequent local demand for the raw material, has given an impetus to the cultivation of the plant, and a good deal has been done by Dr. Trimen and the District Agents of Government to encourage the natives in cotton-growing. A new industry which has sprung up of recent years, however, is the collection of the short-stapled cotton from the pods of the silk-cotton tree (*Bombax Malabaricum*), exported under the name of "Kapok" (a Malay term) to Australia and Europe, to stuff chairs, mattresses, etc. As much as 2000 cwt., worth £4000, was exported in 1890. A small quantity of this tree cotton was annually exported from Ceylon so far back as the time of the Portuguese.

Sugar-cane is largely grown in native gardens for use as a vegetable, the cane being sold in the bazaars, and the pith eaten as the stalk of a cabbage would be. At one time the eastern and southern districts of the island were thought to be admirably adapted for systematic sugar cultivation, but after plantations on an extensive scale had been opened by experienced colonists, and a large amount of capital sunk, it was found that, while the cane grew luxuriantly, the moist climate and soil did not permit of the sap crystallising or yielding a sufficiency of crystallisable material. There is, however, still one plantation and manufactory of sugar and molasses in European hands, near Galle.

Before leaving the branches of agriculture more particularly in native hands, we may refer to the large

expanse of patana grass and natural pasturage, especially in the Uva and eastern districts, which is utilised by the Sinhalese for their cattle, a certain number of which supply the meat consumed in the Central Province. By far the greater portion, however, of the beef and mutton required



SCENE IN THE LOW COUNTRY.

in the large towns of the island is (like rice, flour, potatoes, and other food requisites) imported in the shape of cattle and sheep, to the value of £80,000, from India. In some years the return has been over £120,000, but that was

chiefly through the demand for Indian bullocks for draught purposes. There is no doubt scope for the energy of the people of Ceylon to meet the local demand for such food supplies, although the natural pasturage is, as a rule, rather poor. But this difficulty can be met by the cultivation of other grasses; Guinea and Mauritius grass which grow freely with a little attention, are some of the best fodder grasses in the world and are easily cultivated in Ceylon. At high elevations, the "prairie grass" of Australia is successfully grown.

NATIVE MANUFACTURES.

Of *Manufacturing Industries* Ceylon has a very poor show. The Sinhalese are good carpenters, and supply furniture and carved work in abundance; both they and the Tamils make good artisans; witness the roll of workmen in the Government Public Works and Railway Factories of Colombo, and the Colombo Ironworks, where ocean-going steamers are repaired, as well as a great variety of machinery is turned out, such as steam-engines, water-motors, and tea, coffee, and oil-preparing machines. The Sinhalese were distinguished as ironworkers in very ancient days; they knew nothing about firearms until the Portuguese era, and yet they soon excelled European gunmakers in the beautifully-worked muskets they turned out for their king. Even now there are ironsmiths who make muskets in the villages, within 20 miles of Colombo, for some 35 to 40 rupees (say £2 10s.), which can scarcely remunerate for the time given to them in their primitive mode of working. They were early workers in brass and glass, as their ancient ruins show, and they must have known a little about electricity, for it is related in the *Mahawansa* that King Sanghatissa, A.D. 234, placed a glass pinnacle on the Ruanwelli Dagoba, to serve as a

protection against lightning. Of late years, the natives have watched with interest the introduction of railways, the electric telegraph, telephone, and light; and when suitable electric motors are made available, and the numerous and splendid streams and waterfalls of the hill-country afford ready force for utilisation, they will be still more delighted. Any contrivance for saving human labour has a great attraction to the Sinhalese Buddhists. Native cotton spinners and weavers were at one time common, but the industry is dying out; very little tobacco is manufactured; the making of mats, baskets, and coir-rope gives some employment. The masons of the country are now chiefly Moormen; though the Sinhalese must have done much in the building of tanks and other huge erections in ancient times. Fishing and mining plumbago and search for precious gems, as well as hunting, afford a good deal of employment. Workers in ebony, tortoise-shell, and porcupine quills, and in primitive pottery, are also numerous among the Sinhalese.

CHAPTER VI.

THE ORIGIN AND RISE OF THE PLANTING INDUSTRY.

(See *Appendix Nos. II. and III.*)

Coffee introduced in 1690, by the Dutch—First systematically cultivated in 1740—Extensive development in 1837—Highest level of Prosperity reached in 1868-70—Appearance of Leaf Disease in 1869—Its disastrous effects.

WE now turn to the great planting industry which began in coffee, and the latter additions in tea (now by far the most important staple), cacao, the chocolate or cocoa plant, not to be confounded with the coconut palm : cinchona, rubber trees, cardamoms, etc.; to these the past rapid development and prosperity of the island are mainly due, and on them its future position as a leading colony must still chiefly depend.

It was long supposed, and Emerson Tennent adopted the opinion, that the Arabs first introduced coffee into India and Ceylon, and that the shrub was grown in the latter before the arrival of the Portuguese or Dutch, though the preparation of a beverage from its berries was unknown to the Sinhalese, who were said only to use the young coffee leaves for their curries, and the delicate jasmine-like coffee flowers for ornamenting the shrines of Buddha. But Dr. Trimen, F.R.S., the present accomplished Director of the Ceylon Royal Botanic Gardens, has shown conclusively that coffee was unknown in tropical Asia until the Dutch introduced it into Java in

1690 : it was brought thence by them to Ceylon probably about the same year.

The first attempt at systematic cultivation was made by the Dutch in 1740, but, being confined to the low country, it did not succeed, and they seem never to have exported more than 1000 cwt. in a year. The Moormen (Arab) traders and Sinhalese, having once discovered the use of coffee, kept up the cultivation and trade, but when the British took Ceylon, and up to 1812, the annual export had never exceeded 3000 cwt. So it continued until the master-mind of Sir Edward Barnes designed and opened road communication between the hill country and the coast, and began to consider how the planting industry could be extended, and the revenues of the country developed. The Governor himself led the way, in opening a coffee plantation near Kandy, in 1825, just one year after the first systematic coffee estate was formed by Mr. George Bird, near Gampola. These examples were speedily followed, but still the progress was slow, for in 1837, twelve years after, the total export of coffee did not exceed 30,000 cwt.

It is usual to date the rise of the coffee planting enterprise from this year, which witnessed a great rush of investments, and the introduction of the West India system of cultivation by Robert Boyd Tytler, usually regarded as the "father" of Ceylon planters. An immense extension of cultivation took place up to 1845, by which time the trade had developed to an export of close on 200,000 cwt. Then came a financial explosion in Great Britain, which speedily extended its destructive influence to Ceylon, and led to a stoppage of the supplies required to plant and cultivate young plantations. Much land opened was abandoned, and for three years the enterprise was paralysed; but nevertheless the export continued to increase, and by the time Governor Sir Henry Ward

appeared, in 1855, confidence had been restored, and all was ready for the great impetus his energetic administra-



GENERAL VIEW OF A YOUNG DIMBULA PLANTATION (ABBOTSFORD).

Tea and Cinchona Nurseries in foreground ; rows of Coffee around Buildings in centre ; felled and standing Forest beyond.

From a Photograph by Messrs. W. L. H. Steen & Co., of Colombo.

tion was to give; thus in twenty years, the coffee enterprise had come to be regarded as the backbone of the

agricultural industry of the island, and the mainstay of the revenue. The Sinhalese soon followed the example set them by the European planters, and so widely and rapidly developed their coffee gardens throughout the hill-country, that between 1849 and 1869 from one-third to one-fourth of the total quantity of coffee shipped year by year was "native coffee."

The opening of the "Wilderness of the Peak"—Dimbula, Dikoya, and Maskeliya—under the auspices of Sir Hercules Robinson, led to the highest level of prosperity being reached in 1868, 1869, and 1870, in each of which years the exports slightly exceeded a million cwt., of a value in European markets of not less than four millions sterling, against 34,000 cwt., valued at £120,000, exported in 1837: a marvellous development in thirty years of a tropical industry!

In 1869 the total extent cultivated on plantations (apart from native gardens) was 176,000 acres, and the return from the land in full bearing averaged over 5 cwt. an acre, a return which should, under favourable circumstances, give a profit of from £7 to £10 an acre, or from twenty to twenty-five per cent. on the capital invested. Nothing could be brighter than the prospects of the colony and its main enterprise in 1869: Sir Hercules Robinson's administration, then in mid-course, was most beneficial; the railway between Colombo and Kandy, two years open, was a grand success; and, with an unfailing supply of cheap free labour from Southern India, remarkable facilities for transport, and a splendid climate, the stability of the great coffee enterprise seemed to be assured.

Its importance was fully realised through the statistics of the actual extent cultivated which were for the first time compiled, in full detail (by the author), and although it began to be felt that the good land at the most suitable altitude had all been taken up, and most of it brought

under cultivation, yet no one doubted the comparative permanency of such plantations under a liberal, scientific system of cultivation. But in this same year there first appeared an enemy, most insignificant in appearance, which in less than a dozen years was fated to bring down



LIBERIAN COFFEE.*

the export of the great staple to one-fifth, and a few years later to one-twelfth, of its then dimensions, and that not-

* For the use of this illustration, as also for the plates of the "Coconut Climber," the "Talipot Palm," and the "Coffee Tree," we are indebted to the Rev. S. Langdon, the author of a charming account of the Missionary's home and its rich surroundings of animal and vegetable life in a tropical land. This volume, "My Mission Garden," and another by the same author, "Punchi Nona, a Story of Female Education and

withstanding a wide extension of the area under cultivation. This enemy was a minute fungus on the leaf, new to science, and named by the greatest fungoid authorities *Hemileia vastatrix*, from its destructive powers, now popularly known as "coffee-leaf disease."

First appearing in one of the youngest districts, at a remote corner; it rapidly spread all over the coffee zone, being easily distinguished by the appearance of bright orange spots on the leaves, which subsequently wither and drop off. At first it was treated as a matter of little moment by all but the late Dr. Thwaites, F.R.S., the Director of the Ceylon Botanic Gardens, and for several years it apparently did little harm, crops being only slightly affected, and any decrease being attributed to seasonal influences rather than to a minute pest which, it was supposed, only served to remind the planter of the necessity of more liberal cultivation. Another cause, moreover, served most effectually to blind the eyes of all concerned to the insidious progress of the pest, and the gradual but sure falling-off of crops, namely, a sudden and unprecedented rise in the value of coffee in Europe and America—a rise equivalent, in a few years, to more than fifty per cent. This great access of value to his returns more than sufficed to compensate the Ceylon planter for any diminution of crop. It did more: it stimulated the vast extension of cultivation already referred to, into the largest remaining reserve, known as the Wilderness of the Peak, extending from Nuwara Eliya through a succession of upland valleys in Dimbula, Dikoya, and Maskeliya, to the Adam's Peak range, an area of forest covering some 400 square miles, having the most delightful climate in Village Life in Ceylon," both give vivid, entertaining, and truthful pictures of Ceylon life and mission work, and they show what good is being done to the people of the country by patient teaching. Published by C. H. Kelly, 2, Castle Street, City Road, E.C.; and at 66, Paternoster Row, E.C.

the world, but until this time (1868-69) regarded as too high and wet for coffee. This region had been previously utilised as a hunting-ground by an occasional party of Europeans or Kandians; the pilgrims' paths to Adam's Peak, winding their way through the dense jungle, and intercepted by a succession of large unbridged rivers, were then the only lines of communication. The rush into this El Dorado had begun in the time of Sir Hercules Robinson, who energetically aided the development by extending roads and bridging rivers, thus utilising some of the large surpluses which the sale of the lands and the increased customs and railway revenues afforded him.

A cycle of favourable—that is, comparatively dry—seasons still further contributed to the success of the young high districts, so that coffee (which had previously been supposed to find its suitable limit at 4000 or 4500 feet) was planted and cultivated profitably up to 5000 and even 5500 feet. All through Governor Gregory's administration the high price of coffee and the active extension of the cultivated area continued, the competition becoming so keen that forest-land, which ten or twenty years before would not fetch as much as £2 an acre, was sold as high as £15, £20, and even £28 an acre. Even at this price planters calculated on profitable results; but there can be no doubt that speculation, rather than the teachings of experience, guided their calculations.

Between 1869 and 1879 over 400,000 acres of Crown land were sold by the Ceylon Government, bringing in more than a million sterling to the revenue, and of this 100,000 acres were brought into cultivation with coffee, at an outlay of not less than from two to two and a-half millions sterling, almost entirely in the upland districts referred to.

Meanwhile the insidious leaf-fungus pest had been working deadly mischief. High cultivation, with manure

of various descriptions, failing to arrest its progress, the aid of science was called in, special investigations took place, its life-history was written ; but the practical result was no more satisfactory to the coffee planter than have similar investigations proved to the potato cultivator, the wheat farmer fighting with rust, or the vine grower who is baffled by the fatal *phylloxera*. Less deadly than the *phylloxera*, the leaf-fungus had nevertheless so affected the Ceylon coffee enterprise that, in the ten years during which cultivation had extended more than fifty per cent., the annual export had fallen to three-fourths of the million cwt. The same fungus had extended to the coffee districts of India and Java, with similar results in devastated crops, but in the greatest coffee country of all—Brazil—the impetus to an extension of cultivation which the high prices from 1873 onwards had given was not checked by the presence of this fungoid, or other coffee diseases, and from thence soon began to pour into the markets of the world such crops as speedily brought prices to their old level, reacting disastrously on the Ceylon enterprise, which had at the same time to encounter the monetary depression caused by the collapse of the City of Glasgow Bank and other financial failures in Britain. Misfortunes never come singly, and accordingly a series of wet seasons crowned the evils befalling the planters in the young high districts, while the older coffee lower down began to be neglected, so enfeebled had it become in many places under the repeated visits of the fungus. This so disheartened the coffee planter that he turned his attention to new products, more especially cinchona, and later, tea, planted among and in supersession of the coffee, as well as in new land. Tea especially succeeded so well, as will be fully related farther on, that coffee over a large area has been entirely taken out, and the area cultivated has been reduced from the maximum of 275,000 acres in 1878 to not much more

than 35,000 acres in 1893! The result is that in the present season (1893), in place of the million cwt. exported twenty-two years ago, the total shipments of coffee from Ceylon will not exceed one-fifteenth of that quantity, and although there is much encouragement in high prices to keep up and extend coffee cultivation,* yet, we fear, there is no escape from the drawbacks which continue to beset the coffee planter in Ceylon. The leaf-fungus still hovers about, though in a much milder, and, as some think, a diseased form; but another enemy has since appeared in the shape of a *coccus* (called "green bug"), which has done much harm. Nevertheless, in certain favoured coffee districts, such as the Uva divisions, Maturatta, Agras division of Dimbula, and Bogawantalawa or Upper Dikoya, such coffee as is left still looks vigorous, and may continue to repay careful cultivation, more especially since prices have so much improved, and a scarcity of the product is anticipated. All this refers to the cultivation of the Arabian species of coffee (*Coffea Arabica*); the industry in the Liberian variety came after, and is dealt with under "New Products." The mitigations of the disaster—the silver lining to the dark cloud which came over the prospects of the majority of Ceylon coffee planters—is dealt with in the next chapter.

At an early stage in the history of coffee leaf disease in Ceylon, one cause, and that perhaps the chief, of the visitation had become apparent in the limitation of cultivation to one plant, and one only, over hundreds of square miles of country which had previously been covered with the most varied vegetation. Nature had revenged herself, just as she had done on Ireland when potatoes threatened to become the universal crop, as well as on extensive wheat fields elsewhere, and on the French vineyards. The

* See in Appendix No. II., Paper read by Mr. J. Ferguson before the London Chamber of Commerce, on June 25th, 1892.

hemileia vastatrix was described by Dr. Thwaites as peculiar to a jungle plant, and finding coffee leaves a suitable food in 1869 it multiplied and spread indefinitely. It could not be said that the fungus thus burst out in Ceylon because of coffee being worn out or badly cultivated, for it first appeared in a young district upon vigorous coffee, and it afterwards attacked old and young, vigorous and weak trees, with absolute impartiality. The true remedy, then, for the loss occasioned by this pest—apart from the wisdom of the old adage not to have all one's eggs in one basket—lay in the introduction of *New Products*. .

CHAPTER VII.

NEW PRODUCTS.

(See Appendix, Nos. II. and III.)

Tea—Cinchona—Cacao—Indiarubber—Cardamoms—Liberian Coffee, etc.

TEA cultivation was said to be tried in Ceylon in the time of the Dutch, but there is no reliable evidence of this tradition, and Dr. Trimen does not believe it ; * for although there is a wild plant (*Cassia auriculata*), called the Matara tea plant, from which the Sinhalese in the south of the island are accustomed to make an infusion, yet nothing was done with the true tea plant till long after coffee was established. Between 1839 and 1842, under the auspices of Governor Stewart-Mackenzie and others, experiments were made with the Assam tea plant at Peradeniya and Nuwara Eliya, but without permanent results. A little later, the Messrs. Worms (cousins of the Rothschilds, who did an immense deal in developing Ceylon) introduced the China plant, and, planting up

* Dr. Trimen is kind enough to report to me (September 1892) as follows :—" Bennet, in his 'Ceylon and its Capabilities,' gives a figure, a good one, of the real tea plant which, he says, was collected near Batticaloa (I think in 1826), but from the text he clearly confused it with our Matara tea, the leaves of the 'Ranawara' (*Cassia auriculata*). Still I think true tea may have been grown in some gardens in Ceylon, as it was certainly in the Botanic Gardens at Kalutara before 1824, the date of Morris's Catalogue. Assam tea was sent from Calcutta as early as 1839, and planted at Nuwara Eliya."

a field on the Ramboda Pass, proved that tea would grow well in the island. Mr. Llewellyn about the same time introduced the Assam plant again into Dolosbagie district, but no commercial result came from these ventures. Attention was, however, frequently called to this product, and in 1867 a Ceylon planter was commissioned to report on the tea-planting industry in India. In that same year the attention of planters was also first turned to the cinchona plant, which had been introduced six years



THE TEA PLANT.

earlier to India and Ceylon by Mr. Clements Markham. The Director of the Botanic Garden, Dr. Thwaites, however, found great difficulty in getting any planter to care about cultivating a "medicine plant," and when the great rise in prices for coffee came, all thought of tea and cinchona was cast to the winds, and the one old profitable product, which everybody—planters and coolies alike—understood, was alone planted.

Very early in his administration, Sir William Gregory, to his special credit be it said, saw the necessity for new

products, and he used all his personal and official influence to secure their development, introducing a new feature into the Governor's annual speech to the Legislative Council in special notices of the progress of tea, cinchona, cacao, Liberian coffee, and rubber cultivation. The influence of the principal journal in the colony (the *Ceylon Observer*) was earnestly cast into the same scale, and practical information to aid the planter of new products was collected for it from all quarters, more especially from the tropical belt of the earth's surface.*

Cinchona.

When Governor Gregory arrived in 1872 only 500 acres of cinchona had been planted, but before he left in 1877 not only had these increased to 6000 acres, but the planters had begun thoroughly to appreciate the value of the new product, its suitability for the hill-country and climate of Ceylon, and the profits to be made from judicious cultivation. The great rush, however, took place on the failure of coffee in 1879 and the next three years, so that by 1883 the area covered by this plant could not be less than 60,000 acres. The enormous bark exports which followed from Ceylon so lowered the price (involving the great blessing of cheap quinine) that it became no longer profitable to cut bark in the native South American cinchona groves, or to plant further in Ceylon, India, or Java. Attention, therefore, began in 1884 to be diverted from cinchona; nevertheless the exports from the existing area continued high, and the area still under cinchona, making allowance for what was

* In June 1881 the monthly periodical, *The Tropical Agriculturist*, was started by the author from the *Observer* Press for the special purpose of meeting the requirements of planters. It circulates all round the tropical belt of the world, and has received high encomiums in Britain, United States, West Indies, South America, and Australia.

planted throughout the tea and coffee plantations, continued up to 1887 at not less than 30,000 acres, with several (perhaps forty) million trees above two or three years, of all descriptions of cinchona, growing thereon. The export of bark, which was 11,547 lb. in 1872, rose to 15,892,078 lb. in 1887; but since then, with the great reduction in price (quinine falling in fourteen years from 12*s.* to 1*s.* an ounce), the cultivation began to be super-



CINCHONA SUCCIRUTRA * (*Genuine Red Bark*).

seded by tea, and the export fell down to 5,679,339 lb. in 1891, while that for 1892 was rather more. If only the price is sufficient, Ceylon can continue to export 4,000,000 to 5,000,000 lb. of cinchona bark; but Java is now the great source of supply and its bark is much richer. Very great mistakes were made at first in cinchona-planting in the use of immature seed and by the choice

* The original drawing of this illustration has been kindly supplied by Messrs. Howards & Sons, of Stratford, E.

of unsuitable species and unsuitable soil, but the Ceylon planters rapidly qualified themselves to be successful cinchona growers, and a few still find, especially in the Badulla and Madulsima districts, that a good deal may be done to supplement their staples (tea and coffee) through this product.

Tea.

It has long been the conviction of many who have studied the climate and the character of Ceylon soils that the country is far more fitted to become a great tea producer than ever it was to grow coffee. It is now realised, too, that a large proportion of the area opened with the latter product—apart from the appearance of leaf-fungus altogether—would have done much better under tea. Unlike India, there is never in the low country, western and south-western, or in the central (the hilly) portions of Ceylon, a month of the year without rain, the annual fall in this region ranging from 80 to 200 inches, while the alternate tropical sunshine and moisture form the perfection of climate for the leaf-yielding tea-shrub. Untimely downpours, which so often wrecked the blossoms and the hopes of the coffee planter, do no harm to the leaf crop of the tea planter. Not only so, but the harvesting of tea leaf is spread over six, or even nine months of the year. If a fresh flush of young leaf fails from any cause this month, the planter has generally only a few weeks to wait for another chance, and, save for the “pruning” and the very wet season in Ceylon, the tea planter can look for some returns nearly all the year round. Very different was the case with coffee, the crop of which for a whole year was often dependent on the weather during a single month; or even a week’s (or a day’s) untimely rain or drought might destroy the chance of an adequate return for a whole year’s labour. Even in

the favoured Uva districts there were only two periods of harvesting coffee in the year. Again, while the zone



THE COFFEE TREE.

suitable for the growth of coffee ranged from 1500 or 2000 to 4500 or 5000 feet above sea-level, tea seems to flourish equally well (the Assam indigenous kind, or good

hybrid) at sea-level and up to 4000 feet, and (a hardy hybrid or China kind) at from 3000 to 6000 and even to close on 7000 feet above sea-level. The tea shrub is found to be altogether hardier and generally far more suitable to the comparatively poor soil of Ceylon than ever coffee was, and indeed the Sinhalese regard it as "a jungle plant." Nevertheless it took many years to convince Ceylon planters of the wisdom of looking to tea; and for some years even after it was gone into in earnest, much less progress was made than in the case of cinchona. There were good reasons for this in the greater cost of tea seed, and the much greater trouble entailed in the preparation of the produce for the market. Beginning from 1873 with an extent planted of 250 acres, in ten years this area increased to about 35,000 acres, while in the succeeding year, 1884, this was doubled, as much being also added in 1885, and a large extent in 1886, so that before the Jubilee Year of Queen Victoria's reign closed, there were not less than 150,000 acres covered with the tea plant in Ceylon. Five years more have added over another 100,000 acres, so that in 1893 the industry extends to 255,000 acres in all. Tea seed is now cheap enough, and the manufacture of the leaf is no longer a mystery, and Ceylon, already nearly equalling Assam in production, is on the highway to become a rival to the whole of the Indian districts in the production of tea. The tea export from Ceylon of 23 lb. in 1876 rose to 7,849,886 lb. in 1886, to 68,274,420 lb. in 1891, and to over 78,000,000 in 1892, while it is expected to go on for some time increasing, provided prices do not fall too much, so that, when the 255,000 acres are in full bearing, the total export should not be less than 95,000,000 to 100,000,000 lb., say in 1896. There are still considerable reserves of Crown land suitable for tea, for, as already said, it is found to produce profitable crops on land a few hundred feet above sea-level, as

well as at all altitudes up to the neighbourhood of Nuwara Eliya, approximating to 7000 feet; while the Sinhalese may be expected to grow tea in their own gardens, at any rate for local consumption.

The rapid development of the tea-planting industry in Ceylon during the past four or five years constitutes the most interesting and important fact in the recent history of the island.* The future of the colony depends upon this staple now far more than on any other branch of agriculture, and so far the promise is that the industry will be a comparatively permanent and steadily profitable one. On favoured plantations, with comparatively flat land and good soil (tea loves a flat as coffee did a sloping hill-side), tea crops have already been gathered in Ceylon for some years in succession in excess almost of anything known in India. With unequalled means of communication by railway and first-class roads—Uva districts will this year have their railway—with well-trained, easily-managed, and fairly intelligent labourers in the Tamil coolies, with a suitable climate and soil, and, above all, with a planting community of exceptional intelligence and energy in pushing a product that is once shown to be profitable for cultivation, the rapid development of our tea enterprise from the infant of 1876–80 to the giant of 1893 may be more easily understood.† Ceylon teas have been received with exceptional favour in the London market, and the demand is well up to the supply. The teas are of a high character and fine flavour, perfectly pure, which is more than can be said of a large proportion of China and Japan teas. It was therefore expected by competent authorities that as the taste for the good teas

* See Appendix No. II., Paper read by Mr. J. Ferguson before the London Chamber of Commerce, June 1892.

† In 1891, the Ceylon Tea Plantations Company (the premier and largest company) made a total out-turn of very nearly 4,300,000 lb. of tea, and in excess of that of any of the Indian tea companies.



ASSAM TEA TREE.

of Ceylon and India spread—one never enjoys a common or adulterated tea after getting accustomed to one of good flavour—the China teas, to a great extent, would fall out of use. This has been fully realised, Ceylon tea in 1891–2 driving China very largely out of consumption in the United Kingdom. The only danger now is of prices falling too low to be remunerative. Still, if there is to be a struggle, there can be little doubt that the average Ceylon tea planter can hold his own. The consumption of his staple is spreading every year, and if the English-speaking people of the United States, Canada, South Africa, and Australia only did equal justice to the tea with their brethren elsewhere, the demand would there also exceed the supply. Moreover, tea can be delivered more cheaply from Ceylon, allowing for quality, than from either India or China. As was the case with coffee, the preparation of the new staple in Ceylon is in a fair way to be brought to perfection. Improved machinery has already been invented by local planters and others to save labour, to counteract the effect of unsuitable weather (for withering the leaf, etc.), or to turn out teas with better flavour; and yet the industry cannot be said properly to be more than a dozen years old in the island! Already its beneficial influence on local business, export trade, and revenue is widely felt. The Sinhalese, in many districts, are working for the tea planters, and native tea-gardens are also being planted up on low-country roadsides. This process is bound to go on until there is a wide area covered with tea under native auspices. The cultivators will probably, as a rule, sell their leaf to central factories owned by colonists; but there is no reason why, as time runs on, they should not manufacture for themselves, the product being chiefly used for local consumption. The atmosphere of planting, business, and even official circles in Ceylon just now is highly charged

with "tea," and the number of Tea Patents (for preparing machines), of Tea publications,* Tea Brokers, Tea selling and Tea planting companies would greatly astonish a Ceylon coffee planter of the "fifties," "sixties," or even "seventies," if he "revisited the glimpses of the moon" in the Central, Uva, Sabaragamua, Southern and Western provinces of the island. We call attention to our several engravings of the tea tree, and also to the pictures of our volume (with letterpress), supplied by the Planters' Association of Ceylon (Appendix III.).

Cacao.

A minor product as compared with tea, but still a very promising one in its own place, is *Theobroma Cacao* the ("food for gods") of Linnæus, producing the "cocoa" and chocolate of commerce. This plant can never be cultivated in Ceylon to the same extent as coffee, tea, or cinchona, for it requires a considerable depth of good soil, in a favourable situation, at a medium elevation, with complete shelter from wind, and these requisites are only to be found in very limited areas of this island. Nevertheless, where these conditions exist, cacao promises to be a very lasting and profitable cultivation. To the late R. B. Tytler belongs the credit of introducing this cultivation in the Dumbara valley, and in his hands Ceylon cocoa speedily realised the highest price in the London market, experienced brokers remarking that there must be something in the soil and climate of the districts where it is cultivated in Ceylon peculiarly suited to the product. The Mátalé, Kurunugala, and Uva districts also show fine cacao "walks," and the export of the bean has risen from 10 cwt. in 1878 to 20,532 cwt. in 1891, and about the

* See the "Ceylon Tea Planters' Manual," "Tea and other New Products," "Planters' Note Book," "Tea Tables," and *Tropical Agriculturist*, published by A. M. & J. Ferguson, Colombo.

same in 1892. There are several thousand (12,000) acres now planted, which ought to give an export of 35 000



PODS OF THE CACAO TREE,

Each containing twenty-four seeds in pulp, which, when prepared, give the chocolate of commerce.

cwt. (or 4,000,000 lb., as counted in the West Indies) a

few years hence. From experience in the West Indies, as well as Ceylon, it is found that up to ten years of age



THE CACAO TREE.

cacao is an uncertain, even delicate plant, but after that it is credited in British Guiana with going on for 100 years yielding fairly remunerative crops without much

trouble. Ceylon cacao planters have already improved the method of preparing the bean for the London market, and further improvements are under consideration. It is possible that ultimately an area exceeding 20,000 acres under this plant will enable Ceylon to send 50,000 to 60,000 cwt. of its product into European markets.* There is every encouragement in prices and demand to extend cacao cultivation.

Cardamoms spice is another product, the cultivation of which has benefited a good many Ceylon planters, the export rising from 14,000 lb. in 1878 to 422,109 lb. in 1891, and a larger quantity in 1892; the greater portion to India, where there is a large demand in the Presidency towns, while the quantity sent to the United Kingdom is sufficient to seriously affect the price in the London market. It is, indeed, a significant fact that in respect of several products, practically receiving no attention from our planters fifteen years ago, Ceylon has assumed a prominent if not a leading position in the markets of the world. We refer to tea, cocoa, cinchona bark, and cardamoms, for the supply of which, as of cinnamon, coconut oil, and plumbago, this colony is pre-eminent.†

The *Caoutchouc*, or indiarubber trees of commerce, from South America and Eastern Africa, are of recent introduction, but their cultivation and growth in the planting districts of Ceylon have so far not given very satisfactory results. The growth of some of the trees has been excellent, indeed wonderful, equalling in certain cases forty-eight feet in height, and forty-five inches in circumference in five years, and when more is known

* See pamphlets on "Cacao Cultivation," published by A. M. & J. Ferguson, Colombo. Also in Appendix No. II. Mr. J. Ferguson's Paper before the London Chamber of Commerce, 25th June, 1892.

† See Mr. J. Ferguson's Paper before London Chamber of Commerce, June 25th, 1892; Pamphlet on "Cardamoms Cultivation, etc.," has been published by A. M. & J. Ferguson, Colombo.

about the mode of harvesting the rubber the industry may prove profitable.* There is a great demand for rubber in arts and manufactures in the United States as in Europe, and encouragement therefore to give attention to the product; but Dr. Trimen does not think well of rubber



THE CEARA RUBBER TREE.

A specimen of rapid growth in Ceylon (Sembawattie Estate); 17 ft. high, 10 in. in circumference, and only nine months old.

or guttapercha for *private* cultivation in Ceylon. The Government have been planting rubber through their Forest Department.

* See Mr. J. Ferguson's Paper before London Chamber of Commerce, June 25th, 1892; and "All About Rubber," second edition, published by A. M. & J. Ferguson, Colombo.

Among minor new products Liberian coffee was introduced from the West African Republic of that name (in 1875-79 chiefly), in the hope that its large size and strong habit would enable it at the low elevation in which it grows to resist the leaf-fungus; but this hope has not been realised, and although the acreage planted (1800 acres in 1893) is giving fair crops, there is no special attempt to extend this area for the present.* Nevertheless, there can be no doubt that there is good reason to encourage the further planting of Liberian coffee in Ceylon, and Dr. Trimen is strongly of this opinion. It is now felt that a good many were hasty in discarding Liberian coffee after too brief a trial in 1884-5. It is hoped that now it is felt a sufficient area has been covered with tea by European planters, many of them will turn their attention once again to Liberian coffee in suitable parts of the low-country; while the Director of the Botanic Gardens and Revenue officers are doing much to get the natives to grow both Liberian coffee and cacao around their villages. Coffee trees in bearing were not long ago reported in the Vanni of the Northern province, and an experiment is likely to be made by the European planters on a grant of land eastward of Mineri Lake.

Cotton, tobacco, pepper, African palm-oil nut, nutmegs, croton oil seeds, and annotta dye plant are among the other products to which, by reason of the reverse in coffee, planters in the hill and low-country of Ceylon have been turning their attention in isolated cases, with results more or less satisfactory. In the variety of all the industries detailed in the foregoing pages it is felt there is sufficient guarantee to warrant the belief that the coffee leaf-fungus will prove eventually, if it has not already

* See Mr. J. Ferguson's Paper before London Chamber of Commerce, June 25th, 1892; and "Liberian Coffee," illustrated, published by A. M. & J. Ferguson, Colombo.

proved, a blessing in disguise to the island, its colonists, and native people. The latter suffered with their European brethren, not only through the disease affecting their coffee gardens, but much more through the absence of employment in so many branches which the prosperous coffee enterprise opened out to them. Tea plantations are now filling up the blank left by coffee, so far as field and picking work is concerned, while many of the natives, led by their chiefs and intelligent headmen and villagers, are themselves planting new products—tea, Liberian coffee, and cacao—and so following the example of the European planters. In this way the Planting enterprise in all its ramifications in Ceylon is fraught with the promise of a greater and more reliable prosperity than ever appertained to coffee alone in its palmyest days.

CHAPTER VIII.

PRESENT POSITION OF AGRICULTURAL ENTERPRISE, LOCAL INDUSTRIES, AND FOREIGN EXPORT AND IMPORT TRADE.

Export of last Decade—The Plumbago Trade—Gold and Iron—Native Industries generally flourishing—Tea and Cacao will make up for the Deficiency in Coffee.

TO sum up and show at a glance the present position of the export trade arising from our agricultural enterprise and local industry, we give in Appendix a tabular statement of the *staple exports*. In Appendix No. I. will be found the actual figures of the staple exports (and their distribution) in 1891, and previous three years.

There are a few headings in this export table that we have not touched on yet, and the principal one of these is *plumbago*, or graphite. This is the only mineral of commercial importance exported from Ceylon. The mining industry is entirely in the hands of the Sinhalese; mines of from 100 to 200 and even 300 feet depth are worked in a primitive fashion, and the finest plumbago in the world for crucible purposes is obtained. The industry has taken a great start of recent years, the average export increasing about 50 per cent. within the decade; the value of the trade averages about £350,000 per annum, and this mining industry has sprung up entirely within the last forty-five years.*

* See Monograph on "Plumbago," by A. M. Ferguson, contributed to the Royal Asiatic Society's Journal (Ceylon), in 1885.

Mention may be made of the precious stones found in Ceylon and exported in certain quantities, the chief being rubies and sapphires and cat's-eyes. "Pearls" are included in the Customs returns with "precious stones," and the total value of all recorded in any one year for exports has never exceeded £9000; but the large proportion of both pearls and precious stones taken out of the island, on the persons of natives or others leaving, would not be entered at all in the Customs returns.

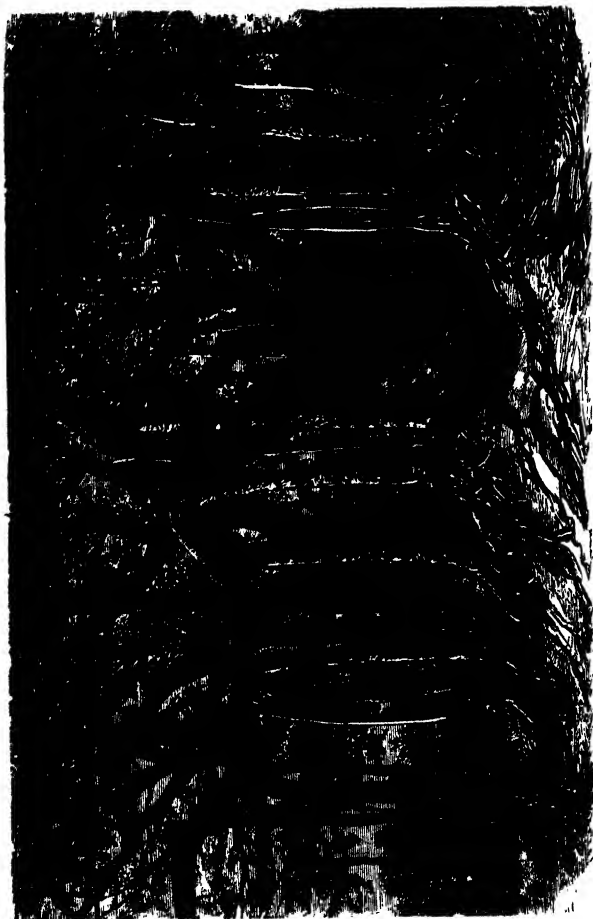
Gold is freely distributed in the primary rocks of Ceylon, but it has not been found in paying quantities. Rich iron ore is very abundant, but there is no coal.*

Of other minor exports affording some trade to native huntsmen are deer-horns, the trade in which indicates a considerable destruction of deer, so that a law has been passed to protect them as well as other game and elephants. Of elephants in thirty years, Ceylon has sent away about 2100, chiefly to India, for service, or show at the Rajahs' Courts. The highest return was 271 in 1865; latterly, however, few have been exported. As some compensation about 16,500 horses have been imported into Ceylon in the past thirty years. The export of "hides and skins" is considerable, and might be more important were it not for the Sinhalese habits of cutting and marking the hides of their cattle. The local industry in tanning is very limited, though the materials are at hand to extend it considerably. There is also much scope for the export of dyeing (as well as tanning) substances. The export trade in timber—apart from ebony—is considerable, such as satinwood, palmyra, tamarind, etc., to a total average value of £20,000 per annum.

It will be observed that the branches of trade more particularly in the hands of the natives—the products of the coconut palm, cinnamon, and minor exports—are in

* See Appendix No. XIII. for interview reported in *Mining Journal*.

a sound, flourishing, and progressive condition. The case is very different with coffee, and the significance of the change will be understood when it is remembered that



THE BANYAN TREE (*Ficus Indica*).

between 1865 and 1878 the average export of coffee shipped was equal in value to more than double of all the other exports put together. But instead of four or five millions of pounds' worth of coffee, we are now reduced to

a value of less than half a million sterling. Here, however, come in the new products, tea, cocoa, cardamoms, and cinchona, the latter three of which divide attention with coffee, while to tea will belong the honour of representing our planting enterprise *par excellence*.

As to the future, we think that an average export of half a million pounds sterling worth (80,000 to 90,000 cwt.) may still be counted on; and to make up the deficiency of three and a half millions we may look to a steady export of cocoa, cardamoms, and cinchona bark, worth together from three to four hundred thousand pounds per annum. But the main dependence must be on *tea*; and, considering the rapid way in which this has been planted, we see no reason to doubt that the area cultivated will suffice a few years hence to produce a quantity, of say ninety to one hundred million pounds weight, worth a sum approximating to two and a half million pounds sterling. Some authorities indeed calculate that there is no reason why Ceylon, if encouragement offered through extended consumption and demand in North America, Australasia, Russia, Austria, Germany, etc., should not plant up to 350,000 acres of tea, and so, by-and-bye, supply between 120,000,000 and 130,000,000 pounds of tea of good quality for the markets of the world. But before further extended cultivation of tea in Ceylon can be encouraged, we must make quite sure of the American, Australian, and European markets aforesaid.

CHAPTER IX.

WHAT THE PLANTING INDUSTRY HAS DONE FOR THE MOTHER-COUNTRY.

The Swing of the Pendulum : a Cycle of Prosperity from Tea—Previous Years of Depression considered—Planting profits absorbed IN THE PAST by Home Capitalists—Absence of Reserves of local Wealth—The accumulated Profits of past years estimated.

SINCE 1888, when the success of the tea-planting enterprise became fully established, Ceylon has entered on a period of comparative prosperity. How long it may last is another question. In tropical experience the alternate swing of the pendulum from bad times to good times and *vice versâ* is fully recognised. For ten or eleven years previous to 1889 financial depression and scarcity of capital prevailed, and this result can readily be understood when a succession of bad coffee seasons, involving a deficiency in the planters' harvests of that product equal to many millions of pounds sterling, is taken into consideration. There have been periods of depression before in the history of the Ceylon planting enterprise, and these, curiously enough, have been noted to come round in cycles of eleven years. Thus, in 1845, wild speculation in opening plantations, followed by a great fall in the price of coffee and a collapse of credit, arrested progress for a time; in 1856-7, a sharp financial shock affected the course of prosperity which had set in; and again, in 1866-7, the fortunes of coffee fell to so low

an ebb that a London capitalist, who visited the island, said the most striking picture of woe-begone misery he saw was the typical "man who owned a coffee estate." Yet this was followed by good seasons and bounteous coffee harvests.

The depression which set in during 1879 was, however, the most prolonged and trying. True, agriculture nearly all over the world had been suffering from a succession of bad harvests, more particularly in the mother-country; but there are certain grave distinctions between the conditions of a tropical colony and lands in a temperate zone. In Ceylon a generation among European colonists has usually been considered not to exceed ten years—not at all on account of mortality, for the hills of Ceylon have the perfection of a healthy climate, but from the constant changes in the elements of the European community—the coming and going which in the past made such a distinct change in the broad elements of society every ten or certainly every fifteen years.

Those colonists who made fortunes in "coffee" in the island—only 10 per cent. of the whole body of planters, however—did not think of making it their permanent home. The capitalist who sent out his money for investment got it back as soon as possible, where, as in many cases, he did not lose it altogether. The "accumulated profits" made during the time of prosperity, which at home form a reserve fund of local wealth to enable the sufferer from present adversity to benefit by past earnings, were, so far as the planters were concerned, wanting in Ceylon. We had no reserve fund of past profits to fall back upon, no class of wealthy Europeans enriched by former times of prosperity living amongst us and circulating the liquidated products of former industry, when the period of adversity and depression arrived.

Ceylon, in fact, in the best coffee days, used to be a

sort of "incubator" to which capitalists sent their eggs to be hatched, and whence a good many of them received from time to time an abundant brood, leaving sometimes but the shells for our local portion. Money was sent out to Ceylon to fell its forests and plant them with coffee, and it was returned in the shape of copious harvests to the home capitalist, leaving in some cases the bare hill-sides from whence their rich harvests were drawn. Had the profits from the abundant coffee crops in those past days been located here and invested in the country and its soil, a fund of local wealth might have existed when the lean years came, manufactures might now have been flourishing, a number of wealthy citizens of European origin might have been living in affluence, and we might have possessed resources to help us over the time of adversity and depression.

The total amount of coffee raised on the plantations of Ceylon since 1849 is about 22,000,000 cwt., and there were produced previously (excluding native coffee in both cases) about 1,000,000 cwt. at the least, making a grand total of coffee of 23,000,000 cwt. as the produce of imported capital. Including interest and all items of local cost, we may safely say that this coffee has been produced for £2 5s. per cwt., and has realised at the least £3 net on an average; it has therefore earned a net profit of £17,000,000. The coffee so produced has been yielded by plantations of not more than 320,000 acres in the aggregate, after including a due allowance for lands abandoned; and the average cost of the estates, including the purchase of the land, has certainly not exceeded £25 per acre, involving a total capital of £8,000,000. There should therefore have been a sum of £9,000,000 of liquidated profit returned to the capitalist, besides the refund of his principal, and there would still remain the existing plant of say 200,000 acres of land under cultivation by means

of the said capital, worth at least £10 per acre, or altogether £2,000,000—thus showing a total profit of £11,000,000. Looking at some tracts of land which have been relegated to weeds and waste—tracts which for long years poured forth rich harvests for their owners—the question will force itself upon us: What would now have been the conditions of these lands if their owners had been settled on them, and their families, homesteads, and accumulated profits had remained to enrich the island? Fortunately, tea has enabled some of this waste land to be profitably replanted. It is strange that, though Ceylon can show many outward and visible signs of material wealth since the establishment of the planting enterprise, in a greatly increased revenue, big public works, railways, roads, harbour works, tanks, irrigation canals, and public buildings, and in a native population greatly raised in the scale of civilisation and in personal and home comforts, yet there is scarcely a wealthy European in the island. There are not a few natives, however, who have amassed fortunes. In the case of Europeans, riches, if they have been heaped up, have gone elsewhere—that is, to the mother-country—out of Ceylon; while there were no large local incomes (save among a limited number of natives) to meet the era of short crops and financial disasters which began in 1879.

Of course, we are now looking at the Ceylon planting enterprise from the colonial point of view. When a financial crisis comes, and home capitalists find they cannot realise and sell their property through the absence of local purchasers, they are apt to speak disparagingly of the colony which has done so much for their brethren, if not for themselves, in years gone by, and which will yet give a good return on capital invested in the future.

Fortunately, within the past generation, a considerable change has taken place in the conditions of planting in

Ceylon. An unusually large number of younger sons, and others with a certain amount of capital of their own, have settled in the higher and healthier districts—possessing in fact one of the finest climates in the world—and have formed comparatively permanent homes, in the midst of their tea as well as coffee and cinchona fields. The number of resident proprietary and of married planters has largely increased within the past twenty years, notwithstanding depression and difficulty, and with the return of prosperity through tea, further settlement in this way may be anticipated.

As regards the native cultivation of exportable articles, the profits from six or seven million cwt. of native-grown coffee shipped, and from cinnamon, coir, coconut oil, plumbago, etc., have of course come back and enriched the people in a way which is visible on all sides, and is more particularly striking to old colonists. There are a very large number of wealthy native gentlemen enriched by trade and agriculture within British times, and nearly all the property in the large towns, as well as extensive planted areas, belong to them; while, as regards the labouring classes, the artisans and carters, the benefit conferred by planting expenditure will be more particularly referred to in our next chapter.

CHAPTER X.

WHAT THE PLANTING INDUSTRY HAS DONE FOR CEYLON.

Population doubled—Revenue quadrupled—Trade expanded sixteen to twenty fold—Employment afforded to Natives—An El Dorado for the Indian immigrant—Coffee in the past, as Tea in the future, the mainstay of the Island—The Material Progress in the Planting Districts.

WHAT British capital and the planting enterprise have done for Ceylon would require an essay in itself to describe adequately. In 1837, when the pioneer coffee planters began work, Ceylon was a mere military dependency, with a revenue amounting to £372,000, or less than the expenditure, costing the mother-country a good round sum every year, the total population not exceeding one and a half million, but requiring well-nigh 6000 British and native troops to keep the peace.

Now we have the population increased to over three millions, with only about 1000 troops, largely paid for out of a revenue averaging £1,500,000, and a people far better housed, clothed, and fed, better educated and cared for in every way. The total import and export trade since planting began has expanded from half a million sterling in value to from eight to ten millions sterling, according to the harvests. During the fifty-five years referred to some forty to fifty millions sterling have been paid away in wages earned in connection with plantations to Kandyan axemen, Tamil coolies, Sinhalese carpenters, domestic servants, and carters. A great proportion of this

has gone to benefit Southern India, the home of the Tamil coolies, of whom close on 200,000 over and above the usual labour supply were saved from starvation in Ceylon during the Madras famine 1877-8. In fact, Ceylon at that time, mainly through its planters, contributed nearly as much aid to her big neighbour as the total of the "Mansion House Fund" subscribed in the United Kingdom.

According to official papers there are several millions of people in Southern India whose annual earnings, taking grain, etc., at its full value, do not average per family of five more than £3 12s., or 1s. 6d. per month—equal to $\frac{1}{2}$ d. per head per day. Incredible as this may appear, it is true, although with better times now perhaps 1d. would be a safe rate *per caput*. Half-a-crown a week is enough to keep an Indian peasant with wife and two or three children in comfort; but there are eight millions people who cannot get this, or even 2s., perhaps only 1s. 6d., for each family per week. No wonder that to such a people the planting country of Ceylon, when all is prosperous, is an El Dorado, for each family can there earn from 12s. per week, and save from half to three-quarters the amount. The immigrant coolie labourers suffered from the short crops of coffee and depression like their masters; but of late years, with the revival of profitable industry through tea, with medical care provided, cheap food, comfortable huts, and vegetable gardens, few labouring classes in the world are better off. Nor ought we to forget the Tamil Coolie Mission, which is doing a good work in educating and Christianising many among the Tamil coolies, mainly supported as it is by the planters.

Our calculation is that from each acre of tea, cacao, or coffee land kept in full cultivation in Ceylon five natives (men, women, and children) directly or indirectly derive their means of subsistence. It is no wonder then that,

with a population increased in Ceylon within the planting era by one hundred per cent., four to five times the quantity of cotton cloth is consumed, and ten times



THE FALLS OF THE HOOLOOGANGA: KNUCKLES.

From a Photograph by H. Humphreys.

the quantity of food-stuffs imported into Ceylon. As a contrast must be mentioned a calculation made respecting the British pioneers of planting—the men who worked say from 1837 to 1870—which showed that only one-tenth

of these benefited themselves materially by coming to Ceylon. Ninety per cent. lost their money, health, or even life itself. Latterly the experience is not so sad, especially in respect of health.

The British governors of Ceylon have repeatedly acknowledged that the planting enterprise is the mainstay of the island. None have more forcibly shown this than Governor Sir William Gregory, who, in answer to the remark that the general revenue of the colony was being burdened with charges for railway extension and harbour works, benefiting chiefly the planting industry, said: "What, I would ask, is the basis of the whole prosperity of Ceylon but the planting enterprise? What gave me the surplus revenues, by which I was able to make roads and bridges all over the island, causeways at Mannár and Jaffna, to make grants for education and to take measures to educate the masses—in short, to promote the general industry and enterprise of the island from Jaffna to Galle—but the results of the capital and energy engaged in the cultivation of coffee? It follows, therefore, that, in encouraging the great planting enterprise, I shall be furthering the general interests of the colony." Sir William Gregory was able to create a new province in Ceylon, entirely occupied by the poorest and previously most neglected class of natives—namely, the North-Central Province—with roads, bridges, buildings, forest clearings, and irrigation works, solely by the surplus revenues obtained from the planting enterprise.

The pioneer planter introduces into regions all but unknown to man a host of contractors, who in their turn bring in a train of pedlars, tavern-keepers, and others, eager to profit by the expenditure about to take place. To the contractors succeed the Malabar coolies, the working bees of the colony, who plant and cultivate the coffee, and at a subsequent period reap the crop. Each of these coolies

consumes monthly a bushel of rice, a quantity of salt and other condiments, and occasionally cloth, arrack, etc., the import, transport, and purchase of which find employment for the merchant, the retail dealer, the carrier, and their servants; and, again, the wants of these functionaries raise around them a race of shopkeepers, domestics, and others, who, but for the success of coffee planting, would have been unable to find equally profitable employment.

Nor are the results bounded by the limits of the colony. The import of articles consumed, as well as of products exported, gives employment to hundreds of seamen and to thousands of tons of shipping that, but for this increased trade, would never have been built. The larger demand for rice stimulates and cheers the toil of the Indian ryot; the extended use of clothing benefits the Manchester spinners and weavers and all dependent on them; a host of employés and middlemen are busy furnishing tinned and other provisions in food-stuffs for a planting colony; while the increased demand for the implements of labour tells on Birmingham and Sheffield, which also benefit, as regards the tea industry, by the demand for varied machinery, for sheet lead, hoop iron, and a host of other requisites. Who shall say where the links of the chain terminate, affecting as they do indirectly all the great branches of the human family?

Then again, when plantations become productive, how many different agencies are called into operation. Tea and cocoa require a host of manipulators in the factories where, as a rule, all is prepared for shipment; but there is transport to, and handling at, the shipping port. Coffee requires far more attention at the seaport, for on arrival in Colombo the parchment coffee has to be peeled, winnowed, and sized by the aid of steam machinery; cardamoms are picked and sorted; cinchona bark is packed by hydraulic machines; and sometimes tea is re-bulked and

re-fired : all these agencies which provide employment for engineers, smiths, stokers, wood-cutters, etc.

Colombo "stores" in their best days (mainly through the drying, picking, and sorting of coffee) gave occupation to thousands (estimated at 20,000) of the industrious poor natives, and enabled them to support an expenditure for food, clothing,* and other necessities, the supply of which further furnished profitable employment to the shopkeeper, merchant, seaman, etc. This is of course still true to a certain extent. In fact, it is impossible to pursue in all their ramifications the benefits derived from the cultivation of the fragrant berry which was once the staple product of Ceylon. Other results, too, there are—moral ones—such as must sooner or later arise from the infusion of Anglo-Saxon energy and spirit into an Eastern people, from the spread of the English language, and, what is of more importance still, the extension of civilisation and Christianity.

The material change in the planting districts and the Central Province of Ceylon within the last fifty-five years has been marvellous. Villages and towns have appeared where all was barren waste or thick jungle ; roads have been cut in all directions ; and prosperous villages have sprung up like magic in "The Wilderness of the Peak." Gampola, Badulla, Nuwara Eliya, and Mátalé, which each consisted of a rest-house and a few huts, and Nāwalapitiya, which had no existence at all in 1837, are now populous towns ; while Hatton, Talawakelle, Lindula, Nanuoya, Panwila, Teldeniya, Madulkelle, Deltota, Haldummulla, Lunugalla, Passera, Wellimadde, Balangoda, Ratotte, Rakwána, Yatiantotte, etc., are more than villages.

Some of the planting grant-in-aid roads, carried through what was dense forest or waste land, are lined for miles with native houses and boutiques, as also with native cultivation in gardens or fields. The change cannot be

better described than in the words of the Rev. Spence Hardy, of the Wesleyan Mission, who, after spending twenty-two years in Ceylon, between 1825 and 1847, returned to England, and revisited the island in 1862.



THE DEVON FALLS, DIMBOOLA : A PEEP FROM THE NEW ROAD.

From a Photograph by H. Humphreys.

Mr. Hardy was accustomed to travel through nearly all the Sinhalese districts. Writing in 1864, he says:—
“ Were some Sinhalese *appuhami* to arise, who had gone down to the grave fifty years ago, and from that time remained unconscious, he would not know his own land

or people ; and when told where he was he would scarcely believe his eyes, and would have some difficulty with his ears ; for though there would be the old language, even that would be mixed with *many* words that to him would be utterly unintelligible. Looking at his own countrymen, he would say that in his time both the head and the feet were uncovered, but that *now* they cover both ; or perhaps he would think that the youths whom he saw with stockings and shoes and caps were of some other nation. He would be shocked at the heedlessness with which *appus* and *naidas* and everybody else roll along in their bullock-bandies ; passing even the carriage of the white man whenever they are able by dint of tail-pulling or hard blows ; and when he saw the horsekeepers riding by the side of their masters and sitting on the same seat, there would be some expression of strong indignation. He would listen in vain for the ho-he-voh of the palanquin-bearers and their loud shouts, and would look in vain for the tomjohns and doolies, and for the old lasco-reens with their talipots and formal dress. He would be surprised at seeing so many women walking in the road and laughing and talking together like men, but with no burdens on their heads and nothing in their hands, and their clothes not clean enough for them to be going to the temple. He would perhaps complain of the hard road, as we have heard a native gentleman from Kalpitiya do, and say that soft sand was much better. He would wonder where all the tiles come from for so many houses, and would think that the high-caste families must have multiplied amazingly for them to require so many stately mansions ; and the porticoes, and the round white pillars, and the trees growing in the compound, bearing nothing but long thin thorns, or with pale yellow leaves instead of green ones, would be objects of great attraction. He would fancy that the Moormen must have increased at a

great rate, as he would take the tall chimneys of the coffee stores to be the minarets of mosques, until he saw the smoke proceeding from them, and then he would be puzzled to know what they could be. In the bazaar he



COFFEE.

A. The ARABIAN, or East African ; B. The LIBERIAN, or West African ; with Coolie attendant employed to shoot squirrels, rats, or hares on plantation.

would stare at the policemen and the potatoes and the loaves of bread, and a hundred other things that no bazaar ever saw in his day. And the talk about planters and barbecues, coolie immigration, and the overland and penny

postage, and bishops and agents of Government, and the legislative council and banks, newspapers and mail-coaches, would confuse him by the strangeness of the terms. He would listen incredulously when told that there is no *rūjakūriya*, or forced labour, and no fish tax; and that there are no slaves, and that you can cut down a cinnamon tree in your own garden without having to pay a heavy fine. Remembering that when Governor North made the tour of the island, he was accompanied by 160 palanquin-bearers, 400 coolies, 2 elephants, and 50 lascareens, and that when the adigar *Æhælāpola* visited Colombo he had with him a retinue of a thousand retainers, and several elephants, he would think it impossible that the governor could go on a tour of inspection, or a judge on circuit, without white olas lining the roadside, and triumphal arches, and javelin men, and tomtoms, and a vast array of attendants. He would ask, perhaps, what king now reigns in Kandy, and whether he had mutilated any more of the subjects of Britain. From these supposed surprises, we may learn something of the changes that have taken place in the island, but we cannot tell a tithe of the whole."

If this was true when the veteran missionary wrote in 1862, the picture might well be heightened and intensified by the experiences of 1893, for the progress in the second half of our good Queen's reign among the people of Ceylon is not less remarkable than it was between 1837 and 1862.

As to the comparative freedom from poverty and suffering which distinguishes the lower classes, the vast masses of the natives of Ceylon, more especially in the rural districts where nearly all have an interest in field or garden, it must be remembered that they live as a rule in the most genial of climates, where suffering from cold is impossible, and the pangs of hunger are almost un-

known, little more than a few plantains a day being sufficient to support life in idleness, if so chosen. Sir Edward Creasy, in his "History of England," says: "I have seen more human misery in a single winter's day in London than I have seen during my nine years' stay in Ceylon." In the larger towns, there are of course a good many very poor people, for whom some provision is made through Friend-in-Need Societies,—there being no poor law nor rates. Occasionally, special subscriptions are raised for the poor, among the merchants and planters, while the Government makes grants to the Societies and has certain charitable votes.

CHAPTER XI.

PRESENT PROSPECTS FOR CAPITALISTS IN CEYLON.

Ceylon still a good Field for Investment—Its Freedom from Atmospheric Disturbances—Shipping conveniences at the New Harbour of Colombo—Low Freights—Cheap and Unrivalled Means of Transport—Certain Lands available for Tropical Culture in Coconut, Palms, Cacao, Liberian Coffee, and to some extent in Tea—Openings for Young Men with Capital—High Position taken by the Ceylon Planter—Facilities for personal Inspection of Investments.

WHAT we have said in the previous chapter will show the value of the planting enterprise to the settled inhabitants and to the government of Ceylon. We have also pointed out the immense advantages gained in commerce and profits by the mother-country. The British Capitalist, who, during the period of deficient coffee crops, grievously lost confidence in Ceylon, has within the past six years found cogent reason to forbear condemnation, and to look still on this colony as one of the best of British dependencies for the judicious investment of capital. It may be unnecessary now, in 1893, to offer him encouragement, because the value of Ceylon tea is everywhere recognised; but in some home circles the island may still be decried.

The situation of Ceylon in the Eastern World is peculiarly favoured in certain respects. The atmospheric disturbances which periodically agitate the Bay of Bengal, and carry, in hurricanes and cyclones, destruction to the shipping in the exposed Madras roadstead and the devoted

Hooghly, seldom or never approach the north-eastern shores of this island. If Java and the rest of the Eastern Archipelago boast of a far richer soil than is to be found in Ceylon, it is owing to volcanic agency which makes itself known at frequent intervals by eruptions and earthquakes, the utmost verge of whose waves just touches the eastern coast of the island at Batticaloa and Trincomalee in scarcely perceptible undulations. On the west, again, Ceylon is equally beyond the region of the hurricanes which, extending from the Mozambique Channel, visit so often and so disastrously the coasts of Madagascar, Mauritius, and Zanzibar. The wind and rain-storms which usher in periodically the south-west and north-east monsoons sometimes inflict slight damage on the coffee and rice crops, but there is no comparison between the risks attaching to cultivation in Ceylon and those experienced by planters in Java and Mauritius.

The same absence of risk holds good with reference to the formerly open roadstead of Colombo, and the island shipping trade, which has for years been nearly all centred there.

Except for an occasional gale from the south-west, there was no special danger to be guarded against, and the risks to vessels lying at Colombo were much less than to those at Calcutta, Madras, or Bombay. But the delay in the transaction of shipping business, owing to the prevalence of a heavy surf and a stiff breeze during monsoon months, was more than sufficient to justify the very substantial breakwater and allied harbour works which, under the direction of Sir John Coode and his representative, Mr. Kyle, were some years ago successfully completed at Colombo. The capital of Ceylon is now the great central mail and commercial steamer port of the East. All the large steamers of the P. and O. Company, Orient, the British India, Star, Ducal, and most of the

Messageries, Nord-Deutscher Lloyds, Austro-Hungarian Lloyds, Rubattino, the Clan, Glen, City, Ocean, Anchor, Holts, and other lines for Europe, India, China, the Straits, and Australia, call at Colombo regularly. One consequence of this, valuable to the merchant and planter, is the regular and cheap freight offered to the world's markets. Freights now do not average one-half of the rates prevalent some years ago.

There is no tropical land—indeed there are few countries anywhere—so thoroughly served by railways and roads, canals and navigable streams, as are the principal districts of Ceylon at the present day. The means of cheap transport between the interior and the coast (a few remote districts only excepted) are unequalled in the tropics. Indian tea planters confess that their Ceylon brethren have a great advantage over them in this respect, and still more so in the abundant supply of good, steady, cheap labour, trained by long experience to plantation work. A more forcing climate, too, than that of Ceylon does not exist under the sun; while now that the country is fully opened, the risks to health are infinitesimal compared with those of pioneers in new countries or of the tea planters in the Terai of India. Whatever may be said of the inimical effects of bad seasons on coffee—too much rain at blossoming time—there can be no doubt of the advantage of abundance of moisture and heat for *tea*, and it is in respect of the fitness of large tracts of undeveloped country for tea production that we would especially ask for the attention of British capitalists.

Indian tea planters, who have come to see how tea is growing in Ceylon, confess that we are bound to rival Northern India. Tea, of as good quality as that from Assam, can be placed on board ship at Colombo for less per pound than Indian tea on board ship at Calcutta. But tea (although the principal) is only one among a list

of valuable tropical products which Ceylon is well fitted to grow.

As a body, Ceylon planters are the most intelligent, gentlemanly, and hospitable of any colonists in British dependencies. The rough work of pioneering in the early days before there were district roads, villages, supplies, doctors, or other comforts of civilisation, was chiefly done by hard-headed Scots: men bivouacked in the trackless jungle with the scantiest accommodation under tropical rains lasting for weeks together, with rivers swollen to flood-level and impassable, while food supplies often ran short, as none could be got across the wide torrents. All these and many other similar experiences are of the past in the settled planting districts of Ceylon, although there are outlying parts where pioneers can still rough it to their hearts' content. In the hill-country the pioneers about twenty years ago began to be succeeded by quite a different class of men. Younger sons with a capital, present or prospective, of a few thousand pounds, educated at public schools, and many of them University men, found an opening in life on Ceylon plantations far more congenial than that of the Australian bush or the backwoods of Canada. Of course some of these did not succeed as planters, as they probably would not have succeeded at anything in the colonies; but for well-inclined young men of the right stamp, not afraid of hard work, Ceylon still presents an opening as planters of tea, Liberian coffee, cacao, coconut palms, etc., provided the indispensable capital is available.

The usual mode, and the safe one, is to send the young man fresh from home, through the introduction of some London or Colombo firm, to study his business as a planter, and to learn the colloquial Tamil spoken by the coolies, under an experienced planter for two or three years. In prosperous times such young assistants were

taught and boarded free in return for their help, and began to earn a salary after a year or so. Now, a fee for board and teaching (£50, or at most £100 for a year) may be needful. Nowhere in the whole wide world can young men learn so thoroughly the management of native free labourers, the mysteries of tea, coffee, cacao, cinchona, palm planting, etc., or be so well equipped as *tropical* agriculturists as in Ceylon. Ceylon planters and machinists have taught the rest of the tropics how to grow and prepare coffee properly; more is known in it about the mysteries of cinchona bark culture than anywhere else; the Ceylon tea planter is likely, ere long, to beat both India and China in the race for fine teas. Ceylon "cocoa" has already fetched the highest prices in the London market, just as she sends thither the finest cinnamon, cardamoms, coconut-oil, coir, etc. It may truly be said that the *Press* of Ceylon has greatly aided the planters in acquiring this pre-eminence. The *Ceylon Observer* has sent special correspondents to report on the tea regions of Assam and Darjeeling; on the cinchona gardens of the Nilgeries, and of Java; to West Africa to learn all about Liberian coffee, and to South and Central America to ascertain the progress of coffee; while its manuals on coffee, tea, cinchona, cacao, indiarubber, coconut and areca palms, cardamoms and cinnamon planting, on gold and gems, are known throughout the tropics. Of late years, since 1881, a monthly periodical, the *Tropical Agriculturist*, published at the same office, has been effectually bringing together all the information and experience available in reference to everything that concerns agriculture in tropical and sub-tropical regions. This is merely mentioned, *en passant*, in part explanation of the high position taken by the Ceylon-trained planter, wherever he goes.

After the depression of 1879 many Ceylon plantation managers and assistant superintendents had to seek their

fortunes elsewhere ; and, indeed, the planting districts of Southern India may be said to be offshoot settlements



A TAMIL YOUNG WOMAN OF THE BETTER LABOURING CLASS.

from Ceylon, while in Fiji, Northern Australia, the Straits Settlements, Burmah, and North Borneo, there are Ceylon

planters now pioneering and building up a planting enterprise.

But with the success of tea, many of our wandering colonists have been returning, and there is still scope for the capitalist and for the young man who can, after he has learned planting, command capital in Ceylon. There is a certain extent of forest land suitable for tea, especially in the low-country, and, when sold by Government, it may be had for £2 or £3 an acre, crown title freehold. Select lots suitable for cacao are more difficult to get, though in view of the falling prices of tea, this product and Liberian coffee should receive attention from capitalists and practical planters. There has also been a good deal of encouragement of late to form coconut plantations on the North-west coast near Chilaw, where the land and labour are cheap and the palms come into bearing at an early date. One beneficial result of the depression and scarcity of capital, between 1879 and 1888, has been to secure the utmost economy in doing work, and land is now opened and cultivated for far less than was the case fifteen years ago.

The convenience afforded by quick passages in large steamers *viâ* the Suez Canal, and by railways and roads in Ceylon, is such that capitalists can now inspect their property in Ceylon with as much ease and pleasure as they would have in a two months' trip to the Highlands of Scotland or to the South of Europe; and it is becoming quite a common thing for the retired proprietor or business man to run out to Ceylon for the winter months. How different the case was twenty years ago! We remember a Glasgow capitalist, owning a property worth £100,000 in Ceylon, coming out to see it, and after getting to Nuwara Eliya, within forty miles of the property, refusing to go further, so bad were the roads; and he, a man of sixty-eight or seventy, returned home without ever having

seen the plantation; he ultimately sold his interests to a Limited Company at a considerable profit!

The carriage of produce from the estates to Colombo, from 100 to 200 miles, used often to take as much time



LOW-COUNTRY SINHALESE MAN AND WOMAN.

and cost as much as the freight 15,000 miles round the Cape. From the remotest planting districts to Colombo carriage sometimes still costs in time and money as much as freight to London *viâ* the Canal; but, as a whole, Ceylon is magnificently roaded, has a very considerable

proportion of railways, especially of first-class mountain lines, with an ample supply of cheap labour, and a particularly favourable climate.

Finally, let the capitalist know that obnoxious *laws* connected with land and commerce, based on the Roman-Dutch system, have either been or are shortly to be reformed. Codes are being framed, and antiquated laws bearing on mortgages and other business transactions will be superseded.

CHAPTER XII.

ATTRACTIONS FOR THE TRAVELLER AND VISITOR.*

The Voyage a Pleasure Trip—Historical Monuments, Vegetation, etc.—Variety of Climate—Colombo, the Capital—Kandy, the Highland Capital—Nuwara Eliya, the Sanatorium—The Horton Plains—Adam's Peak—Uva and its long-delayed Railway—Ancient Cities of Anuradhapura and Polonnaruwa—Occasional Pearl Fisheries—Probable Expense of a Visit to Ceylon—The Alleged Inconveniences of Tropical Life.

TO the traveller and visitor Ceylon offers more attractions even than to the capitalist and would-be planter. It is a joke with disappointed men that the stranger can see on the hills of Ceylon the graves of more British sovereigns than of Kandyan kings! But the latter are not wanting, and no dependency of Britain—India not excepted—presents more attractions than Ceylon to the intelligent traveller, to the botanist, the antiquarian or the man of science, the orientalist, or even to the politician and the sociologist. Visitors from America and North India have said that Ceylon, for natural beauty, historical and social interest, is the “show-place of the universe,” and that, as such, it might well, in these days of travelling sightseers, be leased by either a Barnum or Cook! The voyage of twenty-one to twenty-eight days from London to Colombo (of fourteen to twenty-one from Brindisi or Marseilles) on a first-class steamer of any of half a dozen lines competing at from £40 to £65 for the single, or less

* See Appendix No. I.

than double for the return passage, is, at the proper season of the year—September to March or April—a pleasure trip of the most enjoyable and instructive kind. The calling by some steamers at Gibraltar, Malta, Port Said, Suez, and Aden affords instruction and pleasure of a high order; while the beauty of Ceylon vegetation and scenery, the interest attaching to her people, towns, and ancient cities and monuments, amply reward even the worst sea-traveller for the unpleasantness of a voyage. Tennent well says that Ceylon, from whatever direction it may be approached, unfolds a scene of loveliness and grandeur unsurpassed, if it be rivalled, by any land in the universe. Its names—"Lanká, the resplendent," of the Brahmins; the "pearl-drop on the brow of Ind," of the Buddhists; "the island of jewels," of the Chinese; "the land of the hyacinth and ruby," of the Greeks; and "the home of Adam and Eve after losing Paradise," according to the Mohammedans—as Arabi and his fellow-exiles said soon after their arrival—will show the high esteem in which it has been held both in the East and the West.

As for its history, as already mentioned, no region between Chaldea and China can tell so much of its past deeds as Ceylon, while the ruins of its ancient capitals in palaces, temples, dagobas, and tanks are only second to those of Egypt. These ruins are all now rendered accessible in a few days' trip by railway, coach, and other conveyance from Colombo, without risk or inconvenience, and at very little expense to the traveller.*

As to vegetation and natural history generally, Ceylon is one huge tropical garden, presenting objects of intense interest to the botanist and zoologist, from the coral reef and pearl oyster banks around its coasts, and the palms

* See Appendix No. VI., and Burrows' "Guide to the Buried Cities of Ceylon"; also Guides to Colombo, to Kandy, and Nuwara Eliya, published by A. M. & J. Ferguson.



TOPARI TANK, NEAR THE RUINS OF POLOSABUWA.

and creepers bending down to meet “the leaguelong rollers thundering on its shores,” to the grassy pathways running up to hills clothed to their summit with the most varied forest trees, or to the plateaux of Nuwara Eliya and the surrounding plains—“the Elysium of Ceylon”—where, at an elevation of over 6000 feet, in grass, and flowers, and trees, a bit of

“Europe amid Asia smiles.”

There, in snug cottages, wood fires and blankets are often required to keep away the cold. In one day the visitor can pass from Colombo, with its average temperature of 81°, to the sanatorium, with its wintry comforts, and temperature falling to freezing-point occasionally, but averaging 57°; or, in a few months,—when the Uva railway is open—he can pass on the same evening to a nearly perfect climate at an average temperature of 63° on the Haputale range.* During March, April, and May—“the season” at the sanatorium—the weather is very equable, comparatively dry, and delightful. September, and part of August and October, are very pleasant, and often January and February, as well as December sometimes; but thin ice on the water, and hoar frost on the herbage, are then not uncommon. The very wet months are June, July, and December. Sir Samuel Baker lived eight years continuously at Nuwara Eliya, and speaks very highly of its healthfulness.† Indian civilians and other residents declare that Nuwara Eliya is more pleasantly accessible to them than most of their own hill-stations, the short sea-voyage from Calcutta or Bombay being an additional benefit to many who come from the hot dry plains of Central India. For invalids, the marine

* See reference to Uva in Appendix No. I.

† See Sir Samuel Baker’s “Eight Years” and “Rifle and Hound in Ceylon.”



NUWARA ELIYA PLAIN, LAKE AND HAPUTALE MOUNTAINS IN DISTANCE.
From a Photograph by W. L. H. Steen & Co., of Colombo.

boarding-house at Mount Lavinia, as well as the Colombo seaside hotels, are very safe and suitable places of resort.

The perfection of climate, in an average of 65° all the year round, is found at 5000 feet, among the bungalows of Dimbula, Dikoya and Maskeliya, or of Uva, with its drier and at times more pleasant climate. The wet season of the south-west monsoon (June and July) is sometimes rather trying to residents in the districts west of Nuwara Eliya. With the Uva railway open, visitors will henceforward be able to pass easily to the ancient principality, now province of Uva, where the weather is bright and dry in these months. It is no wonder then that parents and others, with their sons, daughters, or other relatives settled in Ceylon, should have begun to visit it in order to escape the trying winter and spring months in England. Not a few who used to winter in Egypt find it nearly as convenient and more interesting to come on to Ceylon. The late Mr. C. A. Cameron and his wife, Mrs. Julia Cameron (the well-known artist and friend of Tennyson), even when in advanced years (approaching to or over fourscore), made the voyage across several times to visit and stay for considerable periods with their sons settled in the island. One London lady past middle life, who ventured to visit her daughter in Ceylon, dreaded the voyage so much that her leave-taking was of the most solemn and desponding character; but her experience was so entirely pleasant that she has since repeated the winter visit several times, and now declares that the trip to "the city" from her residence in a cab is more dangerous and trying to the nerves than the voyage from the Thames to Colombo in a first-class steamer. Of late years winter visitors from Europe and hot-weather refugees from India have been numerous, apart from "globe-trotters" calling in; while the large number of passengers by the mail and commercial steamers to and from Australia,



A LOW-COUNTRY VILLAGE SCENE.

China, India, etc., who land for a day or more, give Colombo and sometimes Kandy a very busy appearance.

Colombo, the capital, a city of close on 130,000 inhabitants, with its fine artificial harbour (projected by Sir Hercules Robinson), has much to interest the visitor in its beautiful drives over the smoothest of roads through the "Cinnamon Gardens"; its lake, and the Kelani river, with Sir Edward Barnes's bridge of boats; its public museum, erected by Sir William Gregory, and containing objects of interest from all parts of the island; the old Dutch church, containing the tombs and monuments of Dutch governors; the bungalows and gardens of the Europeans; still more unique are the crowded native parts of the town, teeming with every variety of oriental race and costume—the effeminate light brown Sinhalese, the men as well as women wearing their hair tied behind in knots (the former patronising combs, the latter elaborate hairpins), the darker and more manly Tamils, Hindus of every caste and dress, Moormen or Arab descendants, Afghan traders, Malay policemen, a few Parsees and Chinese, Kaffir mixed descendants,* besides the Eurasians of Dutch, or Portuguese, or English and native descent.

Colombo has three first-class, besides minor hotels, and the stranger is soon surrounded by native pedlars, especially jewellers with their supply of gems, from rare cat's eyes, rubies, sapphires, and pearls, to first-class Birmingham imitations.

The scene to the new-comer is bewilderingly interesting ;

* Kaffirs first arrived in Ceylon as a company of soldiers sent from Goa to help the Portuguese against the Sinhalese in 1636-40. The first British Governor (the Hon. F. North) actually *purchased* a body of Kaffir soldiers from the Portuguese Government at Goa, besides sending an officer to try and "crib" Malays from the eastward (Straits and Java)!

visions of the “Arabian Nights” are conjured up, for, as Miss Jewsbury sang after her visit some forty years ago:—

“Ceylon! Ceylon! 'tis nought to me
How thou wert known or named of old
As Ophir, or Taprobanè,
By Hebrew king, or Grecian bold:—

“To me thy spicy-wooded vales,
Thy dusky sons, and jewels bright,
But image forth the far-famed tales--
But seem a new Arabian night.

“And when engirdled figures crave
Heed to thy bosom's glittering store—
I see Aladdin in his cave;
I follow Sinbad on the shore.”

Although the mean temperature of Colombo is nearly as high as that of any station in the world as yet recorded, yet the climate is one of the healthiest and safest for Europeans, because of the slight range between night and day, and between the so-called “seasons,” of which, however, nothing is known there, it being one perpetual summer varied only by the heavy rains of the monsoon months, May, June, October, and November. But in the wettest months it rarely happens that it rains continuously even for two whole days and nights; as a rule, it clears up for some hours each day.

Waterworks have been constructed, at a heavy cost, to convey water from mountain streams, distant thirty miles, to serve Colombo, some parts of which are badly off for a good supply. When the works and distribution over the city are completed—an additional pipe to increase the supply is now required—and when the drainage is thus improved, Colombo will more than ever be entitled to its reputation of being one of the healthiest (as well as most beautiful) cities in the tropics, or indeed in the world. A convenient system of tramways is also being projected,

while at present, besides the railway through one side of the town, there are numerous conveyances of different descriptions for hire at very moderate rates, and many "jinirickshaws" (man-power carriages), peculiar to Japan and the Far East.*

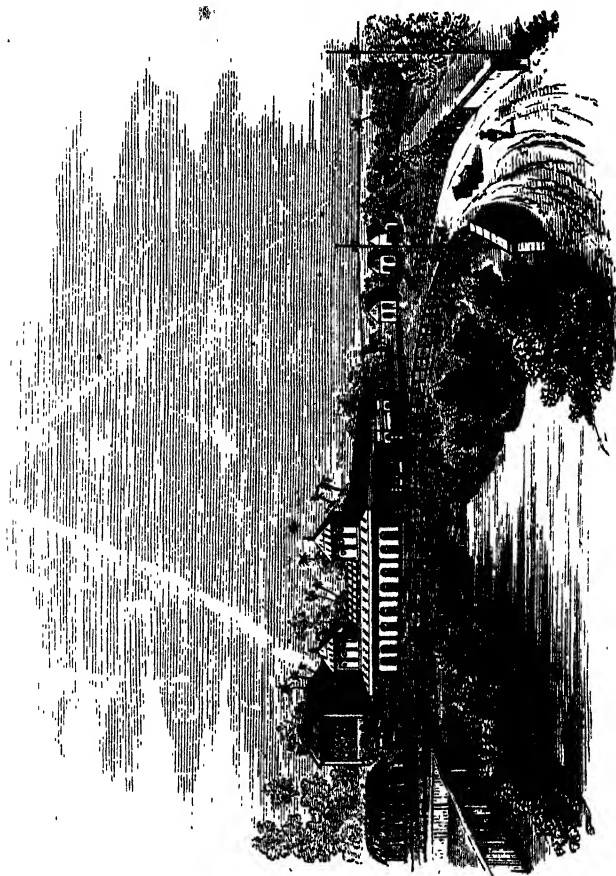
There are several places of interest in the neighbourhood of Colombo that are well worth a visit.

A seaside railway line runs for over fifty miles as far as Ambalangoda, shortly (January 1894) to be extended some twenty miles to Galle. This passes through several interesting stations and towns: Mount Lavinia, with its commanding hotel, originally erected as a Governor's residence; Morotto, the scene of a flourishing church in connection with the Wesleyan Mission; Panadura, with its backwater and fishing; Kalatura, the Richmond of Ceylon; Bentota, the old half-way station, famous for its oysters and river; Ambalangoda, for its sea-bathing; and Galle, for its picturesque harbour and surroundings. The railway runs nearly all the way under an avenue of coconut palms, diversified here and there by yak, bread-fruit, and other fruit trees, and close to the sea shore with the waves breaking over coral reefs and a cool breeze generally blowing. The enjoyment of the scene to a lover of natural beauty is indescribable: the cool shade of the palm groves, the fresh verdure of the grass, the bright tints of the flowering trees, with occasional glimpses through openings in the dense wood of the mountains of the interior, the purple zone of hills above which the sacred mountain of Adam's Peak is sometimes seen, all

* "Jinirickshaws," which have become very popular in Ceylon towns, in Colombo, Kandy, and Nuwara Eliya especially, were freely introduced in 1884, on the suggestion of the author, after a visit to the Straits, China, and Japan, where he noted the "rickshaws" and wrote of their peculiar fitness for Colombo roads. Mr. Whittall, an ex-Hong Kong resident, introduced the first "rickshaw" some time before, but little notice was taken of it till after the letters appeared.

combine to form a landscape which in novelty and beauty is unsurpassed :—

“So fair a scene, so green a sod,
Our English fairies never trod.”



FRONT VIEW OF THE RAILWAY STATION, COLOMBO.

Returning to Colombo, we may remark on the great variety of vegetation presented to the visitor apart from the palms (coconut, areca, kitul, dwarf, etc.), the shrubs, such as cinnamon, the crotons, hibiscus and cabbage trees,

the aloes and other plants, or the many fruit trees of the gardens. The winding, ubiquitous lake, too, adds much to the beauty and health of the city.



VIEW OF ALAGALLA PEAK FROM THE RAILWAY ON THE
KADUGANAWA INCLINE.

The King of Kandy sometimes ordered criminals to be flung from the top of this rocky mountain, as a mode of capital punishment.

From a Photograph by Mr. A. Clark, Forest Department, Ceylon.

As Miss Martineau wrote, fifty years ago, in her political romance, "Cinnamon and Pearls"—"The Blue Lake of Colombo, whether gleaming in the sunrise or darkening

in the storms of the monsoon, never loses its charm. The mountain range in the distance is an object for the eye to rest lovingly upon, whether clearly outlined against the glowing sky, or dressed in soft clouds, from which



KANDY LAKE AND TOWN.

Adam's Peak alone stands aloft, like a dark island in the waters above the firmament."

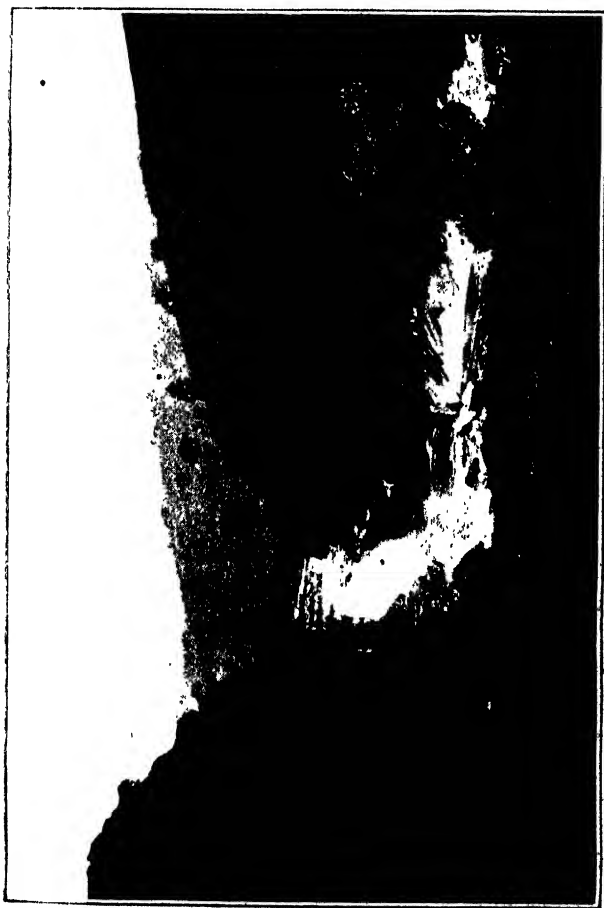
An interesting excursion from Colombo is by coach for 60 miles to Ratnapura, "the City of Gems," running for

the first part alongside the Kelani river, and, at Avisawella, approaching to one of the most extensive tea-growing districts, well worthy of a visit. If the traveller chooses he can drive from Avisawella through this Kelani tea district to Yatiantottie and thence on to join the railway at Nawalapitiya. But if he goes on by coach to Ratnapura, Palmadulle, and Rakwana, he ought to see all about "gem-digging" pits and plumbago mines, and he can also see the plantations; while should he pass on by road *viâ* Ballangoda, to Haputale, he will pass through magnificent scenery and come to very fine tea and coffee fields.

The mildness of the climate of Colombo, the murmur of cricket and insect life at night, and the brilliancy of the moonlight, strike the stranger, although the closeness of the atmosphere then is sometimes felt to be oppressive, and the attention of mosquitoes at certain seasons is far from pleasant. But the low-country can easily be exchanged for the hills. In four hours one passes from Colombo by a splendid railway running through interesting country,* surmounting an incline which is one of the greatest railway ascents in the (at least, tropical) world, 1600 feet above sea-level, to the last capital of the native kings of the island—Kandy—a town of 23,000 people. Kandy is uniquely beautiful: the most charming little town in the world, travellers usually describe it. It is situated in a valley surrounded by hills, and boasts an artificial lake, Buddhist and Hindu temples, including the Maligawa, the most sacred Buddhist temple in the world; this contains the so-called relic of Buddha's tooth,

* From Polgānanella, the half-way station, a railway will, by the beginning of 1894, be open to Kurunegala, the capital of the North-western province, the residence of the kings of Ceylon 1319 to 1347 A.D., and romantically situated under the shade of Actagalla (the Rock of the Tusked Elephant), 600 feet high. The North-western province is a favourite field for sportsmen.

to which the kings and priests of Burmah, Siam, and Cambodia send occasional offerings, and which is had in reverence in portions of India, Thibet, and even China



VIEW OF MAHAVELIGANGA (THE GREAT RIVER) FROM THE RAILWAY NEAR NAWALAPITIYA, WITH THE RICE CULTIVATION ON THE LEFT FOREGROUND, FOREST CLAD HILL-SIDES AND TEA-FIELDS, AND PARK-LIKE GRASSY PASTURES IN THE DISTANCE.

From a Photograph by Mr. A. Clark, Forest Department, Ceylon.

and Japan. "The Pavilion," one of the three official residences of the governor in the island, with its gardens and grounds, surmounted by the public "Lady Horton's Walk" on a hill-range overlooking the Dumbara valley,

will attract attention. The view of the town from any of the hillsides surrounding it is surpassingly interesting.*

Between Colombo and Kandy extensive paddy or rice



ENTRANCE TO THE ROYAL BOTANICAL GARDENS, PERÁDENIYA.

From a Photograph by Slinn & Co.

cultivation can be seen in the low-country; also plantations of coconut palms; and more inland fields of tea,

* See Burrows' "Guide to Kandy, etc.," published by A. M. & J. Ferguson.

with some of Liberian coffee and chocolate trees ; while higher up the Kandians' terraced rice-fields may be noted.

The Botanical Gardens at Pérádeniya, three miles from Kandy, "beautiful for situation exceedingly," as well as full of interest in the vegetation, are well worth a visit.*

The group of palms at the entrance has always been an object of admiration to strangers, and it shows how well adapted Ceylon is to be the home of this family. We print an engraving of this group, and append here the—

NAMES OF PALMS, ETC., IN GROUP.

(See Engraving, page 136.)

1. *Corypha umbraculifera* (Talipot)—highest plant, in the centre.
2. *Phytelephas macrocarpa* (Ivory-nut Palm)—in front of foregoing, and behind native servant.
3. *Cycas circinalis* (called erroneously "Sago Palm")—immediately to the left of preceding, in front.
4. *Areca Catechu*—directly behind the *Cycas*, and with its head of leaves amongst those of the Talipot.
5. *Yucca gloriosa*—a cluster of shoots of this in front ; to the left of the *Cycas*.
6. *Cocos nucifera* (Coconut)—immediately behind the *Yucca*.
7. *Oncosperma fasciculata* ("Kattoo Kittool")—behind, between the Talipot and Coconut.
8. *Acrocomia sclerocarpa*—behind the *Yucca*, and with its trunk a little to the left of that of the Coconut.
9. *Livistona* sp.—at the extreme left of the group.
10. *Livistona Chinensis* ("Mauritius Palm")—behind and directly to the right of the Talipot.
11. *Livistona* sp.—immediately to the right of the coolie, in front.
12. *Oreodoxa regia* (Cabbage Palm)—directly behind No. 11 ; trunk large, smooth, bulged above the middle.
13. *Sabal Palmetto* ("Palmetto" of the Southern States of America)—to the right of the group, in front..

* An interesting little guide-book and list of plants, etc., have been prepared by the director, Dr. Trimen, and are available. A popular illustrated "Flora of Ceylon," by the same accomplished botanist, is now in the press.



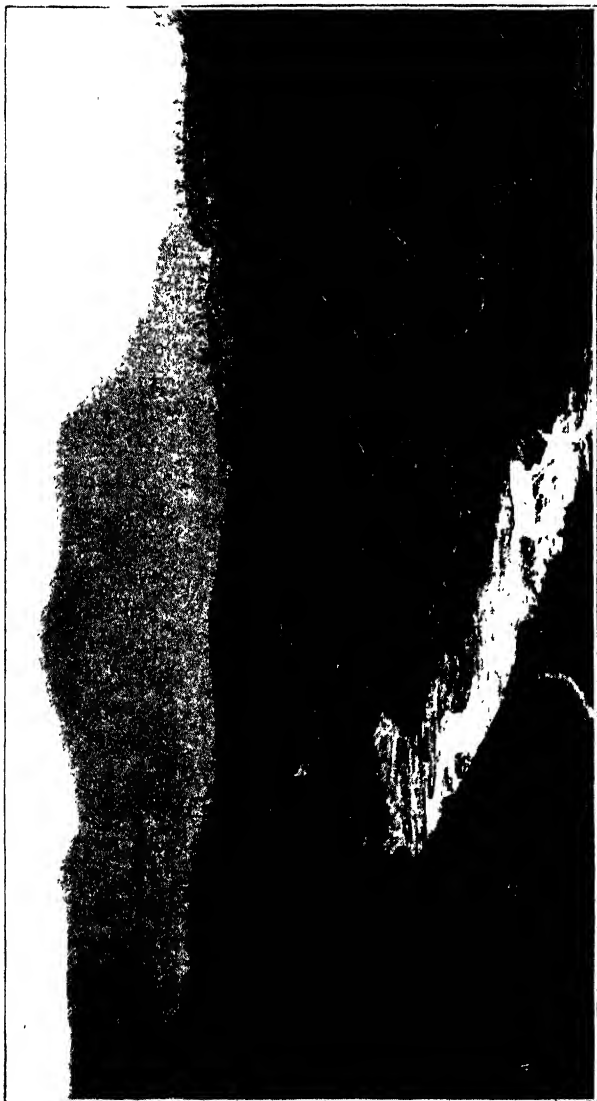
GROUP OF PALMS, ETC., BOTANICAL GARDENS, PÉRADENIYA.

14. *Eloesis Guineensis* ("Palm Oil Palm" of Africa)—with numerous long spreading leaves; behind and overtopping No. 13, and to the extreme right of the group.

From Kandy a visit to the Dumbara valley, five or six miles by road, or to Mátalé, twenty miles by railway, will show some of the finest cacao (chocolate) plantations; while southward, the railway journey to Gampola and and Nāwalapitiya, for seventeen miles, and then on for forty-two miles, rising by successive inclines to a point 5290 feet above sea-level at Nānu-oya, near Nuwara Eliya, will carry the visitor through long stretches of tea plantations, with a sprinkling here and there of cinchona trees and some coffee fields. These are placed amidst enchanting mountain scenery, with rivers, forests, waterfalls, and gorges that nothing can surpass. Altogether, the railway ride from Colombo to Nānu-oya, nearly 130 miles, and rising from sea-level fully one mile in the air, is one of the most varied and interesting in the world.* The journey is made by a first-class broad-gauge railway, with a refreshment car attached, in seven to eight hours, without any change of train or carriage.

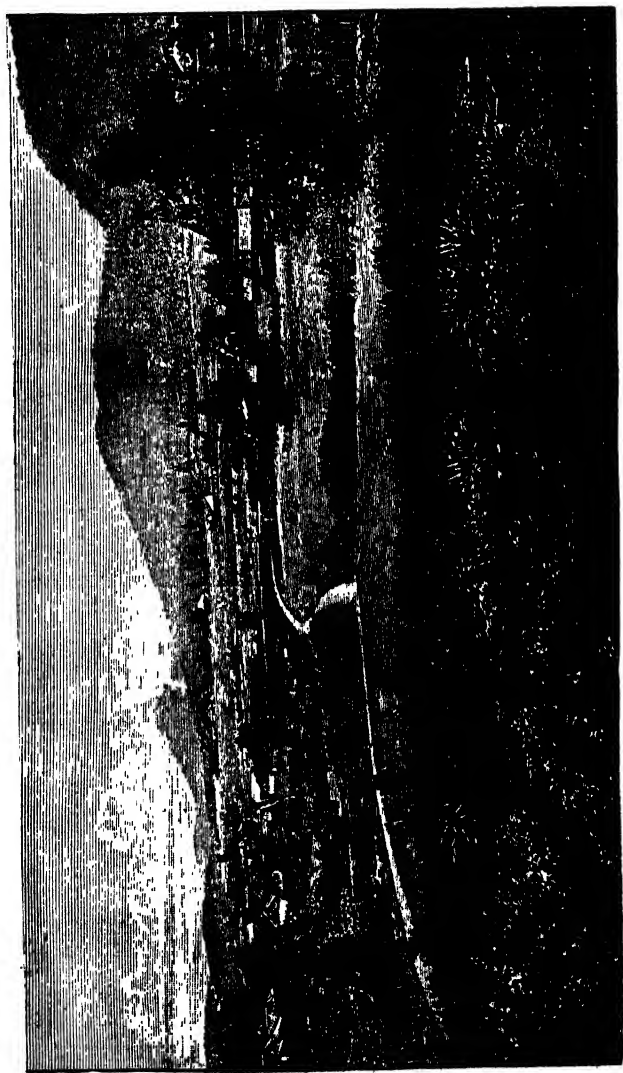
Nānu-oya is only about four miles from Nuwara Eliya, the sanatorium, by a fine road, on which coaches or other conveyances run for the convenience of railway travellers. There is good hotel and boarding-house accommodation; the "Gregory Lake," due to Sir William Gregory, is a fine feature; plantations of tea and cinchona, and the finely situated and admirably kept Hakgalla experimental gardens, are in the neighbourhood. The summit of the highest mountain in Ceylon, Pídurutalágala, 8296 feet, or 2000 feet above the Plains, can be easily attained in a walk before breakfast; while a trip to the top of the far more interesting Adam's Peak (sacred alike to Buddhists,

* See "Guide to Ceylon Railways and Railway Extensions, with Notice of the Sanatorium," compiled and published by A. M. & J. Ferguson.



VIEW FROM THE RAILWAY NEAR THE TALAWEKELLE TUNNEL, "GREAT WESTERN," IN THE GREAT DIMBULA PLANTING DISTRICT, IN THE BACKGROUND. TEA-FIELDS IN THE FOREGROUND, BORDERED BY CINCHONAS.

From a Photograph by Mr. A. Clark, Forest Department, Ceylon.



NUWARA ELIYA, THE MOUNTAIN SANATORIUM.

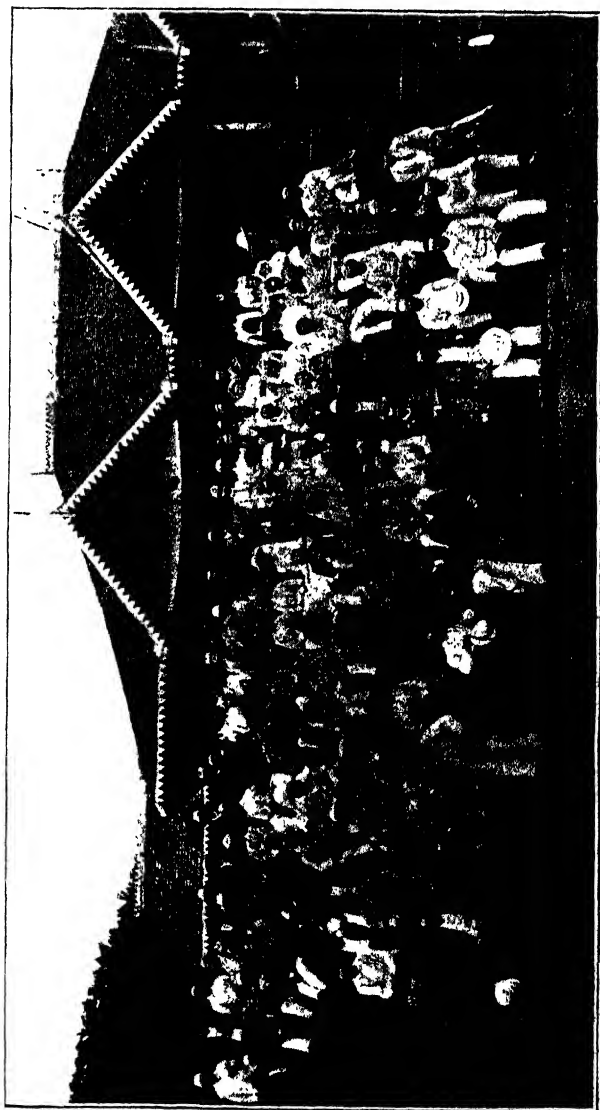
(6200 feet above sea-level, and within four miles of Nánu-oya railway terminus.)

From a Photograph by Messrs. W. L. H. Skeen & Co., of Colombo.

Hindus, Mohammedans, and even Roman Catholics) can be readily arranged by leaving the railway at Hatton. Thence a good road runs to a point on the mountain breast about 3000 feet from the summit, which is 7353 feet high. The climb up Adam's Peak is a stiff one, particularly the last portion, where steps are cut out, and even chains fixed in the rock, to prevent the climber from slipping or being blown down the side of the precipice in stormy seasons. The view from the top in clear weather is ample reward for all trouble, and the projection of the shadow across the low-country to the sea as the sun rises is a sight, once seen, never to be forgotten.

Another interesting trip is the drive from Nuwara Eliya down the old mail-coach road by Ramboda Pass, famous for its waterfalls and outlook, through Pusilawa to Gampola. From Nuwara Eliya, too, excursions can be made to Uda pusilawa and Maturatta districts or to New Galway, calling at Hakgalla on the way. Again, from Nuwara Eliya a day's ride suffices to reach the Horton Plains, 1000 feet higher; and there, as well as between these two points, is a large extent of upland in a delightful climate, well suited for comparative settlement by Europeans. At any rate their children could be kept here in rude health until twelve to fourteen years of age; and the soil is well fitted for small farms and vegetable gardens, as well as for growing cinchona and the finer qualities of tea. Cricket, tennis, as well as other sports, and shooting trips enliven the planter's labours. As a sanatorium for British troops, this site is unequalled, both for climate and accessibility.

Already the surrounding districts, served by road and railway, and having villages, stores, churches, clergymen, and doctors, are beginning to be regarded as the comparatively permanent homes of many of the planters. Nuwara Eliya and the Horton Plains border on the Uva



PLANTERS AND LADIES AT DABRAWELLA TENNIS TOURNAMENT, JANUARY 1891.

Photographed by Mr. A. W. Plitt, Colombo.

Principality, with its comparatively dry upland climate, where so deliciously pleasant and health-giving is the air that to breathe it has been compared to a draught of the pure juice of the grape. As we write, the colony is



FALLS OF RAMBODA.

anticipating the completion of the section of Railway extension from Nānu-oya for 25 miles to Haputale, and seven miles onwards to Bandarawella in the heart of the province of Uva, whence a good coach will run to Badulla

and Lunugalla. The railway will rise to nearly 6300 feet, summit level, and then descend to about 4000 feet



FALLS ON THE DIYALUMA OYA, NEAR NAULA, EASTERN HAPUTALE,
535 FEET HIGH.

From a Photograph by the late E. F. Grigson.

at the terminus. The journey over the dividing range and the burst into the grand Uva amphitheatre of moun-

tain range, embracing rolling pastures (grassy plains), rich, cultivated valleys with sparkling streams and glistening irrigation channels, will be full of an interest of its own to travellers. The effect of the tunnels and the open spaces between, when trains are running, will be most striking. Emerging from a tunnel, travellers will suddenly behold spread out as a vast panorama the grassy prairies, the green rice fields, the glancing rivers and the grand mountain ranges, of the valley of Uva; a marked contrast to the alternating tea cultivation and forest expanses of the western side of the range. The scene will repeatedly appear and disappear as if at the command of a magician, until the series of tunnels and of wooded hills give place to the open and precipitous ranges which stretch from Idulgashena to the Haputale Pass, whence the sea will be visible on the eastern side of the island. A waterfall in Eastern Haputale, one of the divisions of Uva, is supposed to be the highest in Ceylon (page 143), though in Maturatta and Madulsima there are rivals, while the Ella Pass and the view of the low-country and sea coast from the hill range is very striking.* The Uva province, too, perhaps more than any other in Ceylon, will offer attractions and opportunities to the planting settler and

* "Perhaps there is not a scene in the world which combines sublimity and beauty in a more extraordinary degree than that which is presented at the Pass of Ella, where, through an opening in the chain of mountains, the road from Badulla descends rapidly to the lowlands, over which it is carried for upwards of seventy miles, to Hambantota, on the south coast of the island. The ride to Ella passes for ten or twelve miles along the base of hills thickly wooded, except in those spots where the forest has been cleared for planting coffee. The view is therefore obstructed, and at one point appears to terminate in an impassable glen; but on reaching this the traveller is startled on discovering a ravine through which a torrent has forced its way, disclosing a passage to the plains below, over which, for more than sixty miles, the prospect extends, unbroken by a single eminence, till, far in the distance, the eye discerns a line of light, which marks where the sunbeams are flashing on the waters of the Indian Ocean."—*Emerson Tennent*.

capitalist for investment, its soil and climate being generally considered the best in the island for the staple products of the colonist as well as for the fruits and vegetables cultivated by the natives.* In the Park country division of the province, there is also rich pasturage for feeding cattle, while opportunities for sport, from snipe to elephants, are presented on all sides. As already stated, civil and military officers, merchants and others, from India, are now beginning to regard Ceylon, with its seaside boarding-establishments, and its comfortable accommodation at Nuwara Eliya sanatorium, as more desirable than Indian hill-stations during the hot season.

From Kandy the trip to the ancient capitals of Anurádhapura and Polonnáruwa, from ninety to sixty miles to the north and east, can easily be arranged for the visitor; and from amid the ruins of Anurádhapura (2000 years old) one can despatch a telegram to friends at home in England or America, or post a budget of news.†

For sportsmen ‡ there is elephant shooting in the far south in the Hambantota district, or in the eastern province, or outlying northern districts; elk hunting round Nuwara Eliya; or wild buffalo, bear, boar, or wild hog, and cheetah hunting in the forests of the north and east.§

There is not likely now for some years to be afforded an opportunity of being present at a pearl-oyster fishery

* See the reference to Uva and Sir Arthur Gordon's Railway in Appendix No. I.

† See Appendix No. VI., for Notes on a visit to Anurádhapura.

‡ See Appendix IV.

§ Elephant kraals—a system of capturing elephants peculiar to Ceylon—are now of rare occurrence, being organised only on special occasions. A description by the author of the kraal arranged for the entertainment of the Princes Albert Victor and George of Wales on their visit to the colony, which, though not very successful in its primary object, was characterised by some stirring incidents, will be found in Appendix IV. Herds of as many as 200 elephants and 100 wild hogs have been seen at one time in Ceylon.

off the north-west coast, for which Ceylon has been famous from time immemorial. A very successful one of nearly 45,000,000 oysters, bringing in nearly 1,000,000 rupees to the Ceylon Government, was held early in 1891. The primitive mode of diving for and gathering the oysters by a particular caste of native divers (who are paid by one-third of the oysters taken), their sale by Government auction, and the business in pearls with thousands of dealers and their followers, who collect from all parts of India in the hope of a good fishery taking place,—all this is full of novelty.*

A further interesting trip to the visitor, is that round the island by one of the well-found steamers of the Ceylon Steam Navigation Company; a week suffices for this, including the passage northward through Paumben Channel, with a visit to the far-famed Ramisseram temple, to Jaffna and its garden-peninsula and interesting mission-stations; to Point Pedro, the *ultima thule*; Trincomalee, the naval headquarters in the Indian Ocean, with its magnificent harbour; Batticaloa, with its fine lake (singing-fish), coconut and rice culture; Hambantota and its salt pans; perhaps Matara, and its three rivers as well as beautiful surroundings; and Point-de-Galle.†

The cost of living in Ceylon at hotels ranges from 8s. or 10s. per day upwards, board and comfortable accommodation by the month being available at from £7 to £10 for each adult. A lady and gentleman leaving England early in November, and returning by the 1st of May, spending four clear months in a comfortably-furnished bungalow in the hill-country of Ceylon, could do so for a total cost of from £250 to £300, including

* For particulars of the "Pearl Fisheries" see Ferguson's "Ceylon Handbook and Directory," for successive years.

† See Appendix No. V. for extracts from a pamphlet by the author bearing on this trip.

cost of trips to the points of interest in the island; the greater portion of this amount being for passage-money to and fro, which now ranges from £70 to £100 for return tickets. An individual visitor could, of course, do the trip for less. With further competition there can be no doubt—for the steamers' margin of profit allows of a considerable reduction*—that the day is not far distant when £35 should secure a first-class passage between Ceylon and England, and £50 a return ticket extending over six months. Before the Suez Canal opened £100 was the single rate for the overland route.

It may be averred that little has been said about the *drawbacks* to life in, or even to a visit to, Ceylon. The tropical heat in the low-country must be endured; but, if found trying, a single day's journey will carry the visitor to a cool region. As to the detestable leeches described by Tennent as infesting every country pathway, and the poisonous snakes, the visitor may be months, or even years, in Ceylon without ever seeing the one or the other, being no more troubled by them than by the enormous crocodiles in the river or the voracious sharks round the coast. Repulsive insects, such as centipedes, scorpions, and large spiders, are also rare in any well-ordered bungalow; while mosquitoes are only occasionally troublesome, and that chiefly in the low-country. The hum of insect life, as soon as day closes, in the moist, warm, low-country at once arrests the ears of new-comers, though local residents become so accustomed to it as not to hear it until their attention is specially directed to it. The brilliancy of moon-lit nights, especially of a full moon, in the tropics is generally a great treat to strangers; so also are the stars and constellations of the Southern

* A first-class passage by mail steamer can at present be obtained for Melbourne or Sydney for very little more than to Colombo, which is only half way; this is an anomaly which must shortly be removed.

Hemisphere, including the bright fixed star Canopus and the interesting as well as brilliant constellation of the Southern Cross. The monotony of perpetual summer, and of days and nights of about the same length all the year round, affords one point of strong contrast to England, but is pleasing, rather than otherwise, to the visitor.

No less than 15,286 passengers called at Colombo during the first four months of 1892, bound to England or to Australia, India, the Straits, or China.

CHAPTER XIII.

THE REVENUE AND EXPENDITURE OF CEYLON.

Chief Sources of Revenue :—Grain and Customs Dues, Sales of Crown Land and Railway Profits—Taxation and Revenue.

UNTIL 1828 there was an annual excess of expenditure over revenue in Ceylon : but between 1829 and 1836 the balance was on the right side, owing chiefly to a series of successful pearl fisheries. From 1837 to 1842, and again from 1846 to 1849, expenditure once more exceeded revenue ; but from that time there was a surplus, and the amount of revenue quadrupled within twenty-five years, owing to the rapid development of the planting enterprise—the sale of Crown forest lands largely contributing—until in 1877 it attained a maximum of Rs. 17,026,190. After that, owing to the falling off in the coffee crops, the revenue went down, until in 1882 it reached Rs. 12,161,570. Then a gradual recovery set in, but there was no marked improvement until the Tea enterprise became fully established in 1887-8. Since then the improvement has been most marked, so that for 1891 the revenue reached the unprecedented amount of Rs. 17,962,710 (partly owing to a successful pearl fishery), while that for 1892 is (without any fishery) likely to equal the revenue of 1891. The case may be different for 1893, and succeeding years, owing to unwise interference with Land Revenue noticed farther on. At the same time, owing to the depreciation of the “rupee,” the

cost to the Ceylon Government of its remittances to England for interest on debt and other charges has greatly increased, and is estimated for 1893 at 5½ millions of rupees.



KANDYAN (HIGHLAND) SUBORDINATE CHIEFTAIN.

The main sources of the Ceylon General Revenue are found in import duties on the rice imported from India for feeding the coolies and others directly or indirectly connected with the great planting enterprise of Ceylon,

including a large proportion of the urban population. This import duty also bears on all the population of the big towns, and on a considerable proportion of that of the villages. The Sinhalese and Tamil rice cultivators barely grow enough grain to support themselves and their dependents. To balance this import duty (or rather previous to its existence) there has hitherto been an excise collection on locally-grown grain by means of a Government levy, the remains of the old tithe or rent paid to the native kings. This rent had been greatly reduced of late years by the application of commutation, so that the import duty on grain had become decidedly protective of local industry. But not content with this, it pleased Lord Knutsford, as Secretary of State, and Sir Arthur Havelock, to abolish the internal grain levy or "paddy" rent altogether from January 1st, 1893, without, however, touching the corresponding Customs duty. This impolitic, unwise step, and its certain consequences, are fully discussed in Letters in Appendix No. X., and in a few remarks at the end of the chapter. The other most productive import duties are those on wines, spirits, hardware, and cotton goods. Altogether the Customs bring in between a quarter and a fifth of the entire revenue. The annual income from the railways, all held by the Government (and 122 out of 204, shortly to be 270, miles the free property of the colony), now makes up as much of the general revenue as do Customs duties, or nearly one-fifth of the entire revenue. "Licences" (to sell intoxicating drinks, chiefly arrack) unfortunately yield between one-eighth and one-ninth of the total; and the "Salt-tax" and "Stamps" together make up one-seventh of the general revenue. Sales of Crown lands, chiefly to planters, used occasionally in former years to be as productive as the Customs, but latterly the extent of land offered for sale, and the consequent revenue,

have greatly fallen off. Among the rules guiding the Forest Department formed of recent years is one prohibiting the sale of Crown forest land 5000 feet above sea-level and upwards, or on the ridges of mountains or banks of rivers below that height.

It is felt now that a great mistake was made fifty years ago in not keeping the proceeds of land sales in a separate fund as capital to be expended in reproductive public works, apart from the general revenue. The same may be said of the surplus of the large railway receipts after providing for working expenses and interest on debt with sinking fund. Had this been done, the expenditure on fixed establishments would not have been allowed to increase year by year, as if the general revenue from Customs, land sales, and railway profits, dependent on the planting enterprise, were a permanent source of income. The railway profits were for many years almost entirely due to the carriage of coffee from the interior to Colombo, and of rice, general goods, and manure for the plantations. Now tea (and tea requisites), with cocoa, cinchona bark, cardamoms, and other new products, with a small quantity of coffee, make up the main freight on the line. In addition to the Customs, the railway profits, land sales, the excise on the sale of spirits, stamp duties, and the monopoly or tax on salt, as the main sources of revenue, we have an occasional contribution of from Rs. 100,000 to Rs. 1,000,000 from a pearl fishery. The latter is one of the most acceptable, but one of the most uncertain, sources of Ceylon wealth. The year 1891 gave nearly a million of rupees from this source; but no further fishery is expected for some years, owing to the oysters disappearing from the banks.

Taxation and Revenue in Ceylon.

Special reference is required to the unwise abolition of

the paddy rent—the oldest of Sinhalese revenue levies—by Lord Knutsford on the advice of Governor Havelock after one year of office, and against the opinion of five previous Governors, and a nearly unanimous Civil Service. The latter considered that the one food tax should not be abolished till the other, the import duty on rice, could also be given up, and both in favour of a General Land Tax. These levies were condemned by the Commissioners of 1832, by Emerson Tennent from 1845 to 1860, and all concerned looked forward to their removal so soon as the work of popular education and railway extension were further advanced. But no one contemplated the removal of the one without the other—so establishing most considerable protection against some of the poorest, landless and doubly taxed natives—nor that the paddy rent (however much modified) should be abolished, until a light, general land tax were ready to take its place. Governors Robinson, Gregory, and especially Gordon, devoted the net proceeds of the paddy rent almost entirely, to restoring and improving irrigation tanks and channels for the benefit of the very cultivators concerned; there was no complaint from purely native districts, though in consequence of the failure of coffee, which beggared hundreds of planters, certain paddy cultivators unable to pay rent were evicted, many of them finding employment on tea plantations in other districts. To meet such cases and afford still more relief, Sir Arthur Gordon's Commission had prepared very liberal modifications, remitting rent on the poorest lands, but maintaining an inland collection to justify the Customs duty until such time as a general land tax could be conveniently introduced. But this was swept aside and total abolition of the inland rent ordered by the Secretary of State, from 1st January, 1893, so leaving Ceylon without a rupee of *Land Revenue*, the mainstay of the Revenue of India, and emphasising

dependence on obnoxious Customs duties on grain and cotton goods (already abolished in India), on salt, the tax on which has been increased while lowered in India, on licences for intoxicating drink, and on heavy railway traffic rates. To their shame be it said, the Council of the Cobden Club encouraged Lord Knutsford to abolish the paddy rent without touching the rice import duty, so establishing *Protection* and doing a great injustice to the poor natives in towns and villages. The Civil Service moreover, with no Land Revenue duties, must fall out of touch with the people, and be far less able by-and-bye to introduce the inevitable land levy, or to make it acceptable to the native landowners who will regard it as unjustifiable. For 1893, the Customs duties are estimated to yield Rs. 4,110,000, of which the duties on grain and cotton goods yield Rs. 2,580,000. Railway traffic, through heavy rates on goods (chiefly planters' produce), is estimated to yield Rs. 5,388,781, while the salt tax, arrack licences, stamps, etc., are to gain about Rs. 4,500,000, the estimate of total revenue for 1893 being Rs. 17,847,984, notwithstanding the loss of nearly Rs. 900,000 of land revenue (paddy rent). This, of course, is due mainly to planting (tea) prosperity, and the dependence of the general revenue on this source is shown by the loss of 30 per cent. of the revenue between 1877 and 1883 with the collapse of coffee, and the addition of 40 per cent. to the same revenue with the prosperity of tea since 1886. But this very fact ought to put wise administrators on their guard against trusting to one section of the community and to exceptional prosperity, while releasing a large body of native landholders from their legal obligations of immemorial standing. Should planting again fall on evil days, and the revenue decline, Sir Arthur Havelock's successor will probably have cause to denounce the unwise, unjust, and indefensible abolition policy of 1892-3. For

the expenditure on fixed establishments, pensions, and interest on public debt continues to grow and is a heavy burden—the cost of establishments alone for 1893 being put at Rs. 5,354,805. There is one element of a temporary character which has contributed to the inflation of the general revenue of recent years, namely, the large amount of money spent in the island on railway construction—on the Uva and Galle lines since 1888; but which will cease during and at the end of 1893. Sir Arthur Havelock and his advisers (up to October 1892) have given no signs of appreciating the difference this stoppage of payments to thousands of native labourers and artificers may make to their arrack, stamps, customs, corn, and salt revenues. Meantime the taxation and revenue of Ceylon must be considered in a most uncertain, unsatisfactory condition—the abolition of the rice import duty being a contingency possible any day on a vote in the House of Commons—and a Royal Commission of Inquiry is much required.*

* See papers on Grain Taxation in Appendix No. X. "What would you do with the three millions now lost by exchange?" asked the Rev. S. Barnett, of Whitechapel, during his Indian visit, of a learned Hindu professor. "Reduce the salt tax by half, and spend half on education," was the reply—and the answer is as applicable to Ceylon as to India.

CHAPTER XIV.

WHAT ITS GOVERNMENT CAN DO FOR CEYLON.

Active and Independent Administrators required—The Obstruction to Progress offered in Downing Street—Railway Extensions, Irrigation Works, Northern Arm, Graving Dock, and Tramway at Colombo called for—Law Reform needed—Technical, Industrial, and Agricultural Education needs encouraging—The Buddhist Temporalities Questions—Fiscal Reform of Road, Excise Laws, Salt Monopoly, Food Taxes and Customs Duties—The Duke of Buckingham's Ceylon and Southern India Railway Project—Ceylon and India—Waste Crown Lands.

AS regards the wants of Ceylon, its government is a paternal despotism; and the Governor and Secretary of State (with his Colonial Office advisers) being to a great extent irresponsible rulers, much depends on their treatment of the island. There can be no doubt that in the past progress has been made in spite of, rather than with, the prompt, zealous co-operation of Downing Street. In support of this view we would quote from a review in the London *Spectator* of a recent work on the "Crown Colonies of Great Britain":—

"The system of Crown Colonies is supposed to be that of a benevolent despotism, a paternal autocracy. It is in many cases that of a narrow and selfish oligarchy. It is supposed that the Colonial Office exercises a beneficial supervision, and is everywhere the guardian angel of the bulk of the population in all the British Colonies. The supposition that a few Civil Servants, most of whom have never lived out of England, or engaged in any trade or

business but that of clerks in the Colonial Office, could really exercise any such power, is extravagant on the face of it. There are more than thirty Crown Colonies, as various and widely scattered as Hong Kong, Fiji, Cyprus, Malta, Heligoland, Jamaica, Honduras, Ceylon, and Sierra Leone. How could any body of officials in London, however large, highly educated, and capable, adequately exercise any form of real control or intelligent supervision over such a mixed lot of *disiecta membra*? As for the Secretary of State, who is changed, on the average, once a year, it is impossible that he can be more than a figure-head, or have any real voice in the determination of anything except large questions of policy when there is Colonial trouble. Parliament is, however, supposed to exercise a control." But this control is limited to questions put from time to time in the House of Commons, the answers to which are supplied in the first instance by the same Colonial Office clerks, and in the last resort by the people who are to be controlled, the actual administrators of the various Colonies.*

We have certainly had sad experience in Ceylon of the terrible loss of time, money, and patience (equivalent to loyalty), incurred through the obstructions offered to well-considered local schemes of progress, by the permanent officials of the Colonial Office speaking through the nominal and temporary Secretary of State.

An active, energetic, independent Governor, however, exercises an immense influence, especially if he is at the same time frank, free from a weakness to connect his name

* A curious circumstance in connection with the last (the Unionist) Government was that two of its prominent members were either born in, or had close relations with, Ceylon. Lord Chancellor Halsbury is either son or near relative of Chief Justice Sir Hardinge Giffard, who administered Justice in Ceylon in 1820-27; while Mr. Matthews, Home Secretary, was born in Colombo, where his father lived and died as Advocate-Fiscal (Attorney-General) and Judge about the same time.

with showy, but hasty legislation, risky and unsound though apparently beneficial revenue changes, is opposed to inquisitorial, underhand proceedings, and is inflexibly just. Every department of the public service, indeed almost every individual officer, feels the effect of such a ruler's presence, just as the whole administrative machinery goes to rest and rust in this tropical isle when the fountain-head of authority and honour is found to be somnolent and indifferent himself.

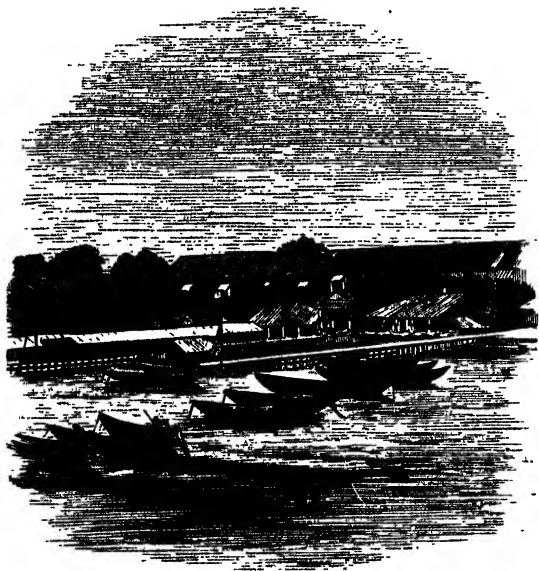
Statesmen bred in the free air of the House of Commons, as a rule, make the best governors of Crown Colonies; at least three or four in the Ceylon list—Governors Wilmot Horton, Stewart Mackenzie, Sir Henry Ward, and Sir William Gregory—had such a training, and stand out pre-eminently as among her best administrators, although equally able and useful were some others—Governors Sir Edward Barnes, Sir Hercules Robinson, and Sir Arthur Hamilton-Gordon—who had no parliamentary experience.

Ceylon wants a governor who has his whole heart in his work, is ready to sympathise with all classes and races, to see provinces, districts, and public works for himself—by journeys on horseback where necessary—open to receive counsel as to proposed legislation from the most diverse quarters, while deciding for himself after giving it due consideration; a Governor, moreover, not easily led away in his councils or provinces by officers, it may be of long experience but with special "hobbies," nor by oriental gossip or suspicion, which if once listened to leads into one quagmire after another. He should also apply as far as possible the commercial principle "Will it pay?" to all proposed expenditure of any considerable amount, whether on roads, irrigation works, or railways. Such an administrator will always be the best gift that Britain can offer to the natives and colonists

of Ceylon, provided that his hands are not tied by the Colonial Office in Downing Street.

The only large public works at present under construction in Ceylon may be said to be the completion of the Uva and Galle Railway extensions, the credit of which belongs to Governor Hamilton-Gordon, a small extension from Kurunegala to Polgahawella, and some comparatively minor irrigation works on the Dedruoya in the North-western, and the Oniche scheme in the Eastern province. But there is a good deal more that might be done, including a Northern Arm and Graving Dock for Colombo Harbour, already designed; a system of Tramways and the Water Supply extension for Colombo; Railway extension from Galle to Matara (a most profitable branch); and a light cheap slow-speed Railway from Kurunegala to Jaffna; besides a great extension of minor and major Irrigation Works so soon as the Taxation system of the country is placed on a proper footing, and such works are provided for out of Land Revenue. But the difficulty too often encountered with the Colonial Office is well illustrated by the case of the extension of the Dimula-Uva railway for twenty-five miles to Haputalé, to serve the populous and rich Uva principality, with its numerous native gardens and European plantations. Without this extension, the forty-two miles constructed to Nānu-oya could not be profitable, the *additional new* traffic of Uva being required to make it so. And yet this was a case in which the Colonial Office baffled the wishes of a local public for many years, although no impartial, intelligent person could doubt that much loss to both the districts concerned and the public revenue resulted from the delay. An ordinance to provide for this extension was passed by the Legislative Council in January 1886, but was not sanctioned till 1888 by the Secretary of State, a variety of excuses—chiefly the state of the revenue—being offered

for the delay, although a sure way to depress the revenue was to deny and delay this all-profitable section of railway extension. Governor Sir Arthur Gordon fought the battle of the Colony most persistently, and wrote, as some people think, almost too strongly on the subject; but for several years without avail. Such is government from Downing Street. We trust there may



JETTY AND COURT HOUSE, GALLE.

From a Photograph by Barton.

be no such delay in the useful undertakings specified above, nor in the more immediately urgent public work in the construction of a Graving Dock for Colombo Harbour, which has the express favour of the Lords of the Admiralty and of the Colombo Chamber of Commerce, and will be certain to prove a most useful and remunerative work. Nearly all the proposals we mention, in fact, come under the head of reproductive undertakings. A

London syndicate of influence is prepared to construct the Jaffna Railway on easy terms to the Colony, payment being made by a system of grants of what are now Crown waste lands.

Remembering that the colony within twenty-five years, almost entirely through its planting enterprise, paid the whole cost of the grand Colombo and Kandy railway, with the seaside and Nāwalapitiya branches—in all 122 miles, amounting to two and a half millions sterling, now the free property of the Ceylon Government; that large portions of the debts on other lines have already been contributed; that the Uva and Galle railways are to be profitable; also that the harbour and waterworks (costing over a million sterling) are likely to pay their own way; that the splendid network of roads and series of restored irrigation tanks and public buildings (costing about seven million pounds sterling) have all been paid for from general revenue,* there should be little hesitation

* Statement showing amount expended on railway construction not raised by loans :—

	R.	c.
Amount contributed from Revenue for construction of Main Line	9,384,831	59
Amount contributed from Revenue for construction of Nāwalapitiya Line	2,274,626	58
Amount contributed from Revenue for construction of Kalutara Line	2,192,214	56
Amount contributed from Revenue for construction of Wharf Line	29,896	87
Expenditure from Breakwater funds for construction of Mahara Line	75,163	00
Expenditure from Breakwater funds for construction of Breakwater Line	221,841	32
Expenditure from Breakwater funds for construction of two Engines and Vans	81,221	00
	<hr/>	
	14,259,794	92
Additional accommodation to December 31st, 1890 ...	1,859,922	82
	<hr/>	
Total ...	16,119,717	74
	11	

in allowing another three-quarters of, or a million, pounds sterling to be added to the debt of Ceylon—the whole debt even then not being much more than two years' revenue—in order to enable further useful undertakings to be carried out. But, certainly as preliminary to such credit, the Taxation of the Colony ought to be placed on a wise, impartial and permanent footing.

In legislative, administrative and social improvements there is still a good deal to do: law reform in improved Mortgage, Bankruptcy, and other measures—in fact, a complete codification of our Civil Laws—is urgently wanted; while education, especially in the vernacular, has to be promoted.

Still more needful is the extension of a system of technical, industrial; and agricultural instruction. Something has been done towards a beginning in agricultural teaching by the establishment of an Agricultural School under able management, and there is also hope of a "Technical" industrial branch being started; but we can only speak of this as "a beginning."* It is felt by many that Ceylon junior civil servants, like those of Java, should pass at an agricultural college and spend one or two years on arrival in the island at Government experimental gardens or plantations. The influence of the personal example and precept of the revenue officers of Government over the head men and people in getting them to try new products or extend cultivation is immense; experimental gardens to supply the natives with plants and seeds, and to show them how to cultivate the same, ought to be multiplied, and bonuses offered for the growth of certain qualities of new products in different districts. One advantage of a general land tax would be that official attention would

* "I believe that the most important thing you can do for education in India [and Ceylon] is to throw as much weight as you can into the Scientific as against the Literary scale."—*Sir E. M. Grant-Duff*.

be given to a variety of products. Another beneficial reform would be the establishment of an agri-horticultural exhibition, with holidays and sports for the people, in connection with each Kachchéri (district revenue station) in the island.

In administration, much good may be done by the discouragement, indeed stern suppression, of gambling among



THE IRON LIGHTHOUSE, GALLE.

From a Photograph by Barton.

the natives, a common concomitant of drunken lazy habits, indeed of assaults, theft, burglary, and other crimes. There is sufficient legislation perhaps; it is the strict and impartial administration of the law towards Europeans and natives alike that is required. Gambling being a chief obstacle to the progress and well-doing of large numbers of the Sinhalese, Tamils, Malays, etc., all public servants, at the very least, should be instructed to be most

careful personally, as well as administratively, to discourage betting, lotteries, and gambling among all classes. Both Governor and Secretary of State should see to this. There is also need for official discouragement of drinking habits among the people by a refusal to open any new liquor shops or arrack taverns, by decreasing the number now in existence, and by experimenting with, if not sanctioning, a modified form of "local option" in certain districts. There are other evil arrangements after European precedent, bearing on public morality, which ought to be suppressed and kept out of Ceylon.

A step of much practical importance in legislation—and an example that could not fail to be useful to India—would be the prohibition of the sale of drugs—narcotic and other poisons—in native bazaars, save under licences and restrictions such as prevail in England. Not so much opium as Indian hemp, bhang, and such like are aimed at; and Ceylon is quite ripe for a legislative and administrative experiment of this kind.

The people of Ceylon are perhaps the least warlike of any nation under British rule: not a soldier has sustained a scratch here since 1817, when the Kandyan kingdom was finally subdued. Street riots in Colombo through religious feuds or dearness of rice, at rare intervals, only require the sight of a red-coat to subside; a few artillerymen (a picked company of the local volunteers would do) with a light field-gun would be sufficient to cope with the most formidable gathering that could possibly take place as a breach of the peace.

Nevertheless, it is important to note that for imperial purposes Ceylon is a most central and useful station for even more than one regiment of infantry with a good staff. This will be readily seen from what has happened during the past twenty-five years. Sir Henry Ward sent the 37th Regiment at a day's notice to Calcutta in 1857

to the aid of Lord Canning against the mutineers, those troops being the first to arrive; in 1863 the troopship *Himalaya* took the 50th Regiment from Ceylon to New Zealand to aid in suppressing the Maoris; later on, part of the Ceylon garrison did good service in China, the Straits, and Labuan; in 1879 the 57th Regiment was despatched at short notice to Natal; and, with equal expedition, the 102nd was sent thither in 1881, when the colony was practically denuded of infantry without the slightest inconvenience.

Ceylon is by far the most central British military garrison in the East; its first-class port, Colombo, is distant 900 miles from Bombay, 600 from Madras, 1400 from Calcutta, 1200 from Rangoon (Burmah), 1600 from Singapore, 2500 from Mauritius, a little more from Madagascar, about 4000 from Natal, 3000 from Hong Kong, 3000 from Freemantle or Western Australia, and about 2200 from Aden. Its value, therefore, as a station from whence troops can, at the shortest notice, be transferred to any one of these points, should make it the Malta of the Eastern Seas; indeed its hill station, served by railway, as already mentioned, might be made the sanatorium for all the troops in Southern India.

It is generally felt—and in this view high naval as well as military authorities agree—that the headquarters of the East India naval station might well be removed from Trincomalee to Colombo, since first-class harbour works have been constructed at the latter; and this would probably be done if only the construction of a Northern Arm to the Breakwater, and of a Graving Dock, were taken in hand.

There are reforms urgently needed in connection with the wide area of valuable lands with which the Kandyan Buddhist temples are endowed, and the revenues of which are now largely wasted by priests and headmen without

benefit to the people, the majority of whom would gladly vote for their appropriation to the promotion of vernacular and technical, especially agricultural, education in each district.* It is recorded that King Wijayo Bahu III., who reigned in Ceylon in 1240 A.D., established a school in every village, and charged the priests who superintended them to take nothing from the pupils, promising that he himself would reward them for their trouble. This was probably done by temple endowments now wasted. Sir Arthur Gordon's "Buddhist Temporalities Ordinance" as a weak compromise is, we fear, not likely to do much real good, though it may be a step in advance of the old system. The multiplication of Reading Rooms and Libraries in the island is desirable, as also a Free Public Library in Colombo. The small annual levy under the Roads or Thoroughfares Ordinance on every able-bodied man between eighteen and fifty-five in the island (the Governor, Buddhist priests, and a few more, alone excepted) has been productive of much good—in providing a network of district roads—since it was drafted by the late Sir Philip Wodehouse over forty years ago. But in some districts, the tax, small as it is, leads to a good deal of trouble and expense through defaulters; and its collection is everywhere, even in the towns, attended with a considerable amount of corruption and oppression. This will, however, grow less as education advances. A liberal modification, if not abolition, of the Salt tax would be a great boon. This tax, though not felt by the prosperous, undoubtedly presses hard on many poor persons, while it debars agricultural improvement in certain directions,—salt is rich in soda, a most valuable article of manure—and affects the health of the people in the remoter districts.

In the estimation of the reformers of the Cobden Club, there used to be a financial reform of greater importance

* See Appendix Nos. VII. and VIII.

than any of these, namely, the abolition of the "Food-taxes of Ceylon," or the levy made on locally-grown grain crops, and the Customs duty imposed on imported rice. But while the internal tax, inherited from the Sinhalese rulers as a *rent*, has been abolished, the Cobden Club to its shame says nothing now about the one-sided, unjust and protective Customs duty on rice. The only substitute possible for both this and the Customs duty is a general land-tax, and to that complexion it must come at last, unpopular though it may be with the natives.

Recent fiscal reformers for Ceylon would have done well to have studied, before abolishing the paddy rent, the history of the fish-tax established by the Portuguese, continued by the Dutch, superseded by the British by a licence for boats, which nearly stopped fishing altogether. The old form had to be resumed, but the tax was reduced again and again, without in the least benefiting the industry, for the fishermen simply caught less, having no longer duty to pay, and when the tax was finally abolished by Government, the Roman Catholic priests stepped in, and continued it, without demur from the fishermen, who are mostly of that Church. In the same way, grain cultivators who have had their tax or rent remitted, have been known to allow a portion of their fields to go out of cultivation in view of no rent to pay—so much less work to do was their idea of the benefit of remission of taxation.

Of course the removal of all Customs' duties and the inauguration of Colombo as a free port will add immensely to the importance of Colombo and the colony. And no doubt the day is fast approaching when, in this respect, the system of taxation in Ceylon and India must approximate. In people, in trade, and other important respects, the two countries are closely allied; and they will be further identified when the grand scheme which the Duke of Buckingham, as Governor of Madras, pro-

pounded to Sir William Gregory, of connecting the railway systems of Ceylon and Southern India, is carried out; the object is to serve the very large passenger traffic in coolies and traders, as well as to carry the produce of Southern India to the safe and commodious Colombo harbour—the Madras harbour works being a great failure. One great difference between the two countries is the much larger Covenanted Civil Service, and number of European officials generally, in Ceylon, in proportion to population and area, than in India.* Of course the individual salaries are much lower here, but it is a question whether the island has not too many public servants of the higher ranks, and whether there is not room for reform in the system of administration such as was referred to by Sir Emerson Tennent in his Financial Reports over forty years ago. The pension list of Ceylon is becoming a serious burden to the colony, and some steps are urgently called for to prevent a continuance of growth such as has been experienced of recent years. On the other hand the cry is getting up here, as in India, on behalf of the educated Ceylonese (natives and Burghers), that room should be found for a greater number of them in the public service. Schemes for a subordinate un-

* Ceylon for its three millions of people and 24,000 square miles has more than half as many Civil Servants as the Presidency of Madras with six times its area and ten times its population. The following may be of general interest :—

	Area : Sq. miles.	Popula- tion.	No. of Cove- nanted Civil Servants.
Bengal and Assam ...	202,905	72,000,000	266
N.-W. Province ...	106,111	44,107,000	} 348
Punjab ...	106,632	18,850,000	
Bombay ...	124,122	16,500,000	162
Madras ...	139,900	31,000,000	157
Burmah (Upper and Lower) ...	278,000	16,736,000	—
CEYLON ...	25,000	2,900,000	81

covenanted service have been propounded, both in their interest and in that of economy, as saving the need for many principal appointments; and some step in this direction may be necessary before long. At the same time, in a country situated like Ceylon, agriculture in one of its many forms ought to be kept steadily before educated burghers and natives alike, as the one sure means of affording a livelihood. Tea planting, we are glad to think, is likely to do much for young men of these classes; in the tea factories there should be room for a large number of intelligent young men of the country, as tea makers, clerks, etc., and very many of the natives ought to cultivate tea-gardens of their own, besides trying other new and profitable products.

A reform tending to extend local industry would be the throwing open, at a merely nominal price, of Crown waste lands, at present unsaleable (at the upset price of Rs. 10 per acre), to cultivators who would spend money and labour on them. This applies to both low and high lands. A "stock farm" is a great want in Ceylon, yet an offer made by a responsible colonist to lease waste Crown lands near Nuwara Eliya, and introduce good stock in cattle and horses from Australia, was rejected some years ago, because the fiat of the Secretary of State had decided that nothing should be done with Crown lands over 5000 feet altitude.

A geological survey of Ceylon is much required in the interests of industry—mines of plumbago as well as gemming and other branches—as well as of science. The Indian Government would readily lend one of their staff to carry out this important duty for Ceylon. The exploration and clearing of the "Buried Cities"—Polonnaruwa, as well as Anurádhapura, both ancient capitals of the Sinhalese kings—should be done much more energetically, or else the aid of American allies be allowed, at least in

the case of Polonnáruwa (see Appendix, "Notes on Anurádhapura"). Mr. H. C. P. Bell, the Government Archæologist in charge of the exploration, is decidedly the right man, but he can accomplish little if not properly supported. This is what Mr. Bell thought of his position at the commencement of 1891 :—

"The cost of excavation at such expenditure of time in proportion to results can hardly be defended. If the 'buried city' of Anurádhapura is to be *searchingly and systematically excavated within a reasonable period of time*, in the face of the many adverse concomitant conditions existing, a force ten times larger than that now employed would not be too large to cope with the countless ruined sites—the square miles, indeed, of ruins—imbedded in solid sun-baked *débris* of brick and tile held close by snaky roots. The greater portion of the ruins above ground has, it is true, been cleared of jungle, but it were mere 'summer madness' to rest on the hope of ever identifying them from such surface measurements and the necessarily limited, almost stereotyped, descriptions alone possible at present. The ruins—at least a very large proportion of them—must be divested, speaking roughly, but within the mark, of *from 4 to 5 ft.* of soil before any comprehensive grasp can be attained of their general plan, interconnection, and relative importance, and our imperfect knowledge be advanced beyond the present stage of groping conjecture."

"Two of the most mysterious rocks in our earth's crust are abundant here, laterite and graphite. Where the iron of the one came from and the carbon of the other, even the most accomplished geologists would be chary of dogmatically affirming. About low level laterite we are able to ~~say something~~, but gneiss or other rock passing into laterite on the top of a hill is another question. Equally difficult is it to say whether graphite was deposited

from water or solidified from gas ; and why the mineral should have so strong an affinity to quartz, is, we believe, amongst the as yet unsolved problems of a science, the scope and definiteness of which have been, respectively, greatly expanded and largely settled by the Indian department."—*A. M. Ferguson.*

CHAPTER XV.

SOCIAL LIFE AND CUSTOMS.

Social Life and Customs of the Natives of Ceylon—How Little Colonists may know of Village Life—Domestic Servants—Caste Restrictions—Curious Occupations among the People.

THE variety of race, colour, physiognomy, and costume among the people in the busy streets of Colombo—especially the Pettah, or native market-place—at once arrests the attention of the stranger. But, save what he sees in the public highways, and may learn from his servants, the ordinary colonist may live many years in the island without learning much of the every-day life and habits of the people of the land, whether Sinhalese or Tamils, in their own villages and homes. There is a beaten track now for the European to follow, be he merchant or planter, and there is so much of western civilisation and education on the surface that the new comer is apt to forget very soon that he is in the midst of a people with an ancient civilization and authentic history of their own, extending far beyond that of the majority of European nations; and with social customs and modes of life, when separate from foreign influences, entirely distinct from anything to which he has been accustomed. The foreigners who see somewhat of this inner life of the people, especially in the rural districts, are the civil servants and other public officers of Government, and the missionaries. Now, as regards the work

of the latter, the average European planter or merchant returning home after six, ten, aye, or even twenty years in Ceylon, too often declares that the missionaries are making no way in Ceylon, that they live comfortably in the towns, and content themselves with ordinary pastoral duties in their immediate neighbourhood, and in fact, that they (the colonists) never saw any evidence of mission work or progress among the natives, unless it were through the catechists and other agents of the Tamil Coolie Mission visiting the plantations. Now, the way to meet such a negative statement would be by an inquiry as to whether the colonist had ever interviewed a missionary to the Tamils or Sinhalese, whether in Colombo, Kandy, or Galle, to go no further, and had asked to accompany him to his stations. Had he done so, he could have been taken to village after village, with its little church and good, if not full, attendance of members, presided over in many cases by pastors of their own people, and in some instances supported by themselves. He would have seen schools of all grades—mission boarding-schools for native girls and lads, and training institutions for the ministry. Now, just as this branch of work in the rural districts of Ceylon is unknown to many scores, if not hundreds, of European colonists who never trouble their heads about anything beyond their own round of immediate duties or pleasures; so it is, for an even wider circle, in reference to the social life and customs of the natives.

Education has made such strides that, in the towns, English is rapidly becoming the predominant language among all classes. In India all foreigners learn a native language, and domestic servants never think of speaking English, even if some few of them understand it. Here, in Ceylon, English is almost universally in domestic use, and there is scarcely a roadside village in Ceylon now

where the traveller could not find some person to speak English, or interpret for him. The coolies on the plantations are different; with few exceptions they only know Tamil, and the planters have to learn that language



MOORMAN "TAMBY" (PEDLAR).

colloquially. Civil servants pass examinations in the languages. Very amusing are some of the servants, occasionally, who are only beginning to acquire English, or who try to show a command beyond their depth; like

the Sinhalese appoo (butler) who, one day, on being remonstrated with by his Christian mistress for attending some tomfooleries of ceremonies at a temple, replied, Yes, he knew better, but he only did it "to please the womens" (his wife and daughters!), the hold of superstition and heathenism in Ceylon, as elsewhere, being strongest on the female portion of the household. On another occasion a horsekeeper (Tamil groom), coming to report to his master that his horse had gone lame, expressed himself thus, holding up his fingers in illustration, "Sar, three legs very good; one leg very bad!" Some of the letters and petitions in English of budding clerks, or warehousemen, or other applicants for situations, are often comical in the extreme. Both Sinhalese and Tamils make the most docile and industrious of domestic servants. Of course there are exceptions, but ladies who have been for some years in Ceylon, after visiting "home" again, or especially after going to Australasia or America, are usually glad to get back to their native servants.

Caste in Ceylon has not so much hold on the people as it has in India, and in respect of domestic service, only one-half to one-third the number of men-servants is required here, in consequence of one man making no objection to different kinds of work. Sinhalese "appoos" and "boys," with their often smooth cheeks, and hair done up in a knot, surmounted by a comb, and with white jackets and long "comboys" (long petticoats), are frequently taken for female servants, the latter having no comb, but a silver or other pin in their hair, and only taking service as ayah (nurse), or lady's attendant. In the hotels passengers frequently make the mistake of supposing they are attended by maid, instead of men, servants. The Sinhalese have, indeed, been called the women of the human race, and the story is that in trying to make soldiers of them, the British instructors in the

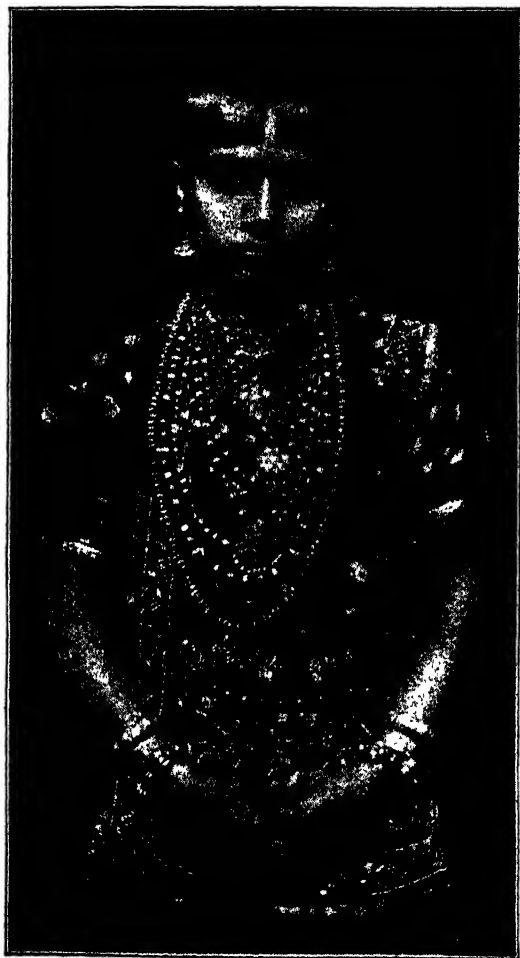
early days never could get them not to fire away their ramrods !

Of course there are some bad native servants, but they are the exceptions ; at any rate a good master and mistress generally get good service. But sometimes robberies do occur in households, and usually then some one or other of the servants has been conspiring with outside thieves. A few colonists prefer Malay servants.

The demand for holidays is often a nuisance, and the saying is that native servants must have half a dozen grandfathers each from the number of funerals of grandfathers they have to attend. The fact is that the Western habit of constant work does not suit the Oriental taste at all, the proverbial saying of the Buddhist Sinhalese being, "Better to walk than to run, to sit down than walk, and best of all to go to sleep."

We have said that caste has not a great hold in Ceylon ; but in one point of social life it is still almost universally observed,—there can be no marriage between persons of different castes. Your servant may be a man of higher caste than your wealthy native neighbour driving his carriage, and yet the appoo would probably never consent to allow his daughter to marry the son of the rich, lower caste man. Christianity is working against caste, and among native Christians there are many cases of caste being disregarded ; but, on the other hand, when the Duke of Edinburgh was entertained by a Sinhalese gentleman of medium caste, it was stated that Sinhalese officials (including a Christian chaplain) of the Vellale (agricultural) caste absented themselves from the entertainment where all were expected to appear, because they could not enter the grounds or house of a man of the Fisher caste. The most striking case in recent times in Ceylon was that of a young girl of good family in a Kandyan village, who fell in love with the son of a trader

in the same village, of greater wealth but lower caste



KANDYAN CHIEF'S DAUGHTER.

than her father, who was a decayed Chief. The lad and girl had seen each other in school days, and acquaintance

had ripened into more than friendship, and they were bent on defying caste, family opposition, and any other obstacle to their marriage. But a young brother of the girl haughtily forbade the courtship, threatening his sister with vengeance if ever he saw her with the young trader. The lovers planned a clandestine match, so far that (being both Buddhists) they should get married by civil registration before the magistrate. They stole away one morning, and were mixing in the crowd usually awaiting the opening of the magistrate's court in county towns, when the young chief, finding out what had happened, rushed up and peremptorily ordered his sister home. She refused and clung to her lover, when the brother suddenly drew a knife from his girdle and stabbed her to the heart. She fell dead on the spot; the murderer holding the knife aloft and shouting, in Sinhalese, "Thus I defend the honour of my family," and going to the scaffold a few weeks after exulting in his deed. Education and the railway are, however, aiding Christianity to weaken the hold of caste, and the people of Ceylon will, before many generations have gone by, have learned that—

"Honour and shame from no condition rise,
Act well your part, there all the honour lies":

and that—

"From yon blue heavens above us bent,
The grand old gardener and his wife,
Smile at the claims of long (or caste) descent."

It is a striking evidence of the slight influence of Buddhism that here, in its sacred or holy land, where it has prevailed for over two thousand years, caste, which was thought to be condemned by its founder and its tenets, still exercises a baneful influence over the Sinhalese people. All castes, however low, were supposed to be eligible to Buddha's priesthood; but in Ceylon

ordination gradually became the privilege of the Vellale caste alone, until a Sinhalese of a lower caste went to Burmah and got ordained, the second priestly order being open to three castes outside the Vellales, but refusing any of other castes—so making two castes of priests in the island! In other Buddhist countries, Burmah, Siam, and Thibet, caste does not exist in any similar form. A stanza from a Ceylon Buddhist work runs as follows—

“A man does not become low caste by birth,
Nor by birth does one become high caste;
High caste is the result of high action—
And by actions does a man degrade himself to a caste that is low.” *

Native weddings, with the peculiarities of each race—Sinhalese, Tamil, or Moormen (Mahomedan)—are sometimes very curious; and, as the parties are generally rather proud than otherwise of Europeans being present, there is no difficulty about getting an invitation. The youthfulness of the bride—perhaps thirteen to fifteen years—and the quantity of jewellery, literally weighing her down (collected and borrowed from all the family circle of relatives for the occasion), are two peculiarities. There are scarcely any unmarried native women, and, as is always the case in a naturally ordered community, the males exceed the females in number. The Sinhalese have no army or navy or flow of emigration to supply, and no artificial customs to interfere with or delay the marriage of their daughters. Of the influence of the Buddhist and Hindu religions upon the people, enough is said elsewhere, but we may just refer here to the fact that a people bred under the influence of tenets (Buddhist) forbidding the taking of life, have developed some of the most cruel and exquisite forms of torture known to history in reference to the lower animals. A law had to be

* See Appendix No. VIII.—Review of the learned work on Buddhism, by the Bishop of Colombo (Longmans, 1822).

passed forbidding the roasting of tortoises alive, in order to get the tortoise-shell of a finer lustre than if taken from the dead animal; and only the other day a military officer discovered in Colombo that native cooks were in the habit of cutting out the tongues of the living turkeys, in order that the flesh, when cooked, might be the more tender. But a long list of such instances might be given, as well as illustrations of the hypocrisy which makes Buddhist fishermen say: "We do not kill the fish, we take them out of the water and they die of themselves!" Householders put out the old dog or cat on the highway for the wheel of a passing vehicle to go over and kill, so that they may have no sin; or shut up the deadly snake in wicker-work on the river to be carried to the sea; while early in the present century it was the custom to expose old and helpless human beings in the jungle, each with a bowl of rice and chatty of water, to die without troubling their relatives, or to be devoured, as was often the case, by beasts of prey. And all this in one of the most bigoted of Buddhist districts—Matara—in the south of the island. It was in the same district a veteran missionary demonstrated the hypocrisy of a catechist, of whom he had authentic accounts that, while professing to be doing certain work as a Christian teacher for the sake of a salary, he was in heart a Buddhist, attending all the temple ceremonies. In a remote village there was no check, and on being questioned by the missionary, while sitting in a room together, he utterly denied that he had any belief in Buddhism. Taking a small brass image of Buddha from his pocket, the missionary placed it on the table, when immediately (as all Buddhists should do) the would-be catechist sprang to his feet, placed his hands before his forehead with a low obeisance towards the image, and then slunk from the room discomfited!

Among the more curious occupations of the people, as related in the census, are such novelties as 1532 devil-dancers (see below), 36 jugglers and monkey-dancers, 121 snake charmers, 240 astrologers and fortune-



DEVIL DANCER, WITH ATTENDANT TOM-TOM BEATER.

tellers, 32 actors and puppet-showmen, 640 tom-tom beaters, 160 comedians and nautch dancers, 16,357 dhobies or washermen, nearly 2000 barbers, 50 elephant-keepers and huntsmen, about 5000 fakirs and devotee-

beggars, 1500 grave-diggers, 200 lapidaries, 400 workers in ivory and tortoise-shell, and 3000 in jewellery, etc. The census of 1891 showed there were 9598 Buddhist priests in Ceylon, but of three different sects—4800 of the Siamese ordination, 3200 Amurapara or Burmese, and 1600 Ramyana or Reformers.*

European civilisation and Christianity are both taking a firm hold of the people. Education is desired by the natives, perhaps not yet for its own sake, but as a means of advancement, as very few good posts are to be obtained in which English is not needed.

Once in our mission schools (and education, especially in the villages, is mainly in the hands of the missionaries) children acquire new habits of industry and perseverance, and in time come to regard truthfulness as desirable, and care for others, whether of their own blood or not, as a duty. Though Buddha led a most self-denying life, and taught others to do the same, yet his example had made small impression on his followers, and philanthropy was not regarded as a duty by the Sinhalese or their priests. Now it is different. Each of our missions can quote many instances of noble generosity and hearty zeal for the welfare of the people.

We have merely touched the skirts of topics in this chapter, which might well require for their treatment a volume in themselves. Those interested in the subject may be referred to good old Robert Knox's veracious account of his sojourn, as a prisoner, among the Kandyan people for twenty years—1659 to 1680—or to more modern books, in Cordiner's, Percival's, Davy's, Forbes's, Pridham's, or Emerson Tennent's histories, with Spence Hardy's "Eastern Monachism," "Jubilee Memorials," and "Legends of the Buddhists."

* The main results of the census of 1891 will be found tabulated in Appendix IX.

CHAPTER XVI.

CONCLUSION.

Relation and Importance of Ceylon to India—Progress of Christianity and Education—Statistics of Population—Need of Reform in the Legislative Council, and Sketch of a Scheme for the Election of Unofficial Members—Loyalty of People to British Rule, as evinced during Royal Visits, and in connection with the Jubilee of Her Majesty the Queen-Empress—Jubilee Celebration—Progress of Ceylon since 1887.

CEYLON, in a social and political way, bears the same relation to India and the Far East that England has done to the European continent. Mr. Laing, when Finance Minister for India, confessed it was most valuable to law-makers and administrators in the Indian Presidencies to have Ceylon under a separate form of government, and to have experiments in administrative and legislative reforms tried here, which served as an example or a warning to the big neighbouring continent, the peoples being allied in so many respects. There is, for instance, no distinction made between native and European judges and magistrates in Ceylon; and the acting Chief Justice, lately, was a Eurasian, while a Sinhalese barrister only retired last year from being Judge of the Supreme Court after fifteen years' service, and other Ceylonese fill the responsible offices of Attorney-General and Crown Counsel as well as District Judges and Magistrates of the Colony. Again, in Ceylon, we have a decimal system of currency, a great step in advance of the cum-

brous Indian system, and we have entire freedom of all religions (including Christianity) from State patronage and control. On the other hand, Ceylon is now much behind India in its fiscal system, the unwise action of Lord Knutsford and Sir Arthur Havelock giving us Protection and discriminating taxation on rice—the staple food of the people—in their worst form.

The progress of Christianity and education * among the



KANDY MALIGAWA, OR TEMPLE OF THE TOOTH.

people is greater than in any other Eastern State, and should Buddhism, the religion of over one and three-quarters of a million of Sinhalese, fall here, it would have a great effect on the millions of Burmah, Siam, and even China, who look to Ceylon as the sacred home of Buddhism. The kings of Burmah and Siam especially continue to take an interest in, and make offerings to, the Buddhist “temple of the tooth” at Kandy. Roman Catholicism

* See Paper in Appendix No. VII.

has been propagated since the arrival of the Portuguese in the sixteenth century; while English Protestant missions have worked in Ceylon since 1811.* The Roman Catholics number about 240,000, the Protestants 70,000, against 1,900,000 Buddhists and demon worshippers, 730,000 Hindus, and nearly 212,000 Mohammedans.

Some allusion should be made to more than one local movement in Ceylon for a reform in the system of government, and more especially in the liberalising of the Legislative Council. Sir Hercules Robinson, while opposing this claim, originated municipal institutions in the three principal towns, as a means of training the people in the art of self-government. The working of these has, however, unfortunately, not been so successful as was hoped, and one reason is a curiously Oriental one, namely, that respectable Ceylonese consider it derogatory to go and ask the people below them—often ignorant and poor franchise-holders—for “the honour of their votes.” “Honour comes from above, not from below,” they say; and so the better classes of natives abstained from the Municipal Boards, and left many disreputable men to get in. A reformed and restrictive municipal constitution law, just passed, may work better. But as regards the Legislature, the occupation of one of the seats allotted to the Ceylonese by nomination of the Governor has always been greatly coveted, and an object of ambition to every rising man in the country. Sir Arthur Gordon very liberally got two additional native seats provided—one for the Kandyan Sinhalese and one for the “Moormen” (chiefly Arab descendants). He also secured a reform in the old practice of granting what was practically life seats, by limiting the term of office for unofficial members to five years. A change of membership in this way can-

* For references to the progress of modern Protestant Christian Missions, *see* Appendix No. VII.

not fail to be beneficial to the community, by educating and testing an increasing number of Ceylonese for public life. There is no reason, however, why even a few more unofficial seats should not be added to the Legislative Board. Indeed, the elective principle might, under due safeguards, be applied in the nine provinces of the island, —under a severely restricted franchise to begin with,—so giving nine elected unofficial members, to whom might be added two or four nominees of the Governor, from among the trading or other native classes not adequately served by the elections; while the planting and mercantile nominated memberships continued. Elections and nominations could take place every six years, or on the advent of each new Governor, and a few more privileges might be accorded to the members, such as the right of initiating proposals, even where such involved the expenditure of public money up to a certain moderate limit. The Governor, for the time being, could always command a majority against any unwise scheme, and his own veto, as well as that of the Secretary of State, would continue operative. Some such improvement of the Legislative Council—which has continued without change for about sixty years, or since the days of Governor Sir Robert Wilmot Horton in 1833—cannot long be delayed, and if asked for on broad grounds by a united community, it might well be granted before the close of the century.

Another practical reform of importance would be the ensuring that four out of the six members of the Executive Council—that is, the Colonial Secretary, Attorney-General, Auditor-General, and Treasurer—should always be trained public servants of the colony, with local experience. The farce has been seen even in recent years of a Governor and his five Executive advisers in Ceylon, not counting half a dozen years of local experience between them. We must also plead, as we have personally urged

on the Secretary of State, that one Judge of the Supreme Court of the Colony should always be taken from among the senior Judicial Civil Servants, who, trained from the magisterial to the highest district benches, not only know the language and laws, but also the habits and local customs of the people, far better than any Colombo lawyers or English judges that can be selected.

Ceylon was honoured with a visit from H.R.H. the Duke of Edinburgh in 1870, from H.R.H. the Prince of Wales in 1875, and from the young Princes Albert and George of Wales in 1881. On each occasion the loyalty and devotion of the people to the British Crown, and their warm personal interest in the happiness and welfare of their sovereign, were very conspicuous. This was still more shown in connection with the Jubilee of Her Most Gracious Majesty the Queen-Empress Victoria, when all classes and races vied with each other in the endeavour to do honour to the occasion. Liberal support has been given to the Imperial Institute, dear to the Queen; while, as a local memento of the occasion, a Home for Incurables was established in Colombo, and loyal addresses, as well as a Women's Offering, were sent to Windsor.

The Jubilee was celebrated throughout Ceylon with great enthusiasm. In Colombo was the chief demonstration, that being the head-quarters of the representative of the Queen; but the whole of the island towns may be said to have been decorated and *en fête*. The Military Review on Galle Face Esplanade at 7 a.m. was the event of the morning of the fête-day in the capital, and the Volunteers shared with the Regulars the duties of the occasion. The *feu de joie* and three ringing cheers were the soldiers' expression of loyalty at its close. This was followed by services in all the places of worship. In the Mission Churches the interesting feature was the union of English, Sinhalese, Tamils, and even Portuguese

descendants, at the same service, addresses being given in all four languages in succession. The Queen's letter, requesting that prayer and thanksgiving be offered up, had been sent from Queen's House to the different pastors, and was duly read at the services, while at the close a collection was made in many churches for the "Ceylon Victoria Home for Incurables."

Then came the feeding of large numbers of the poor in all the towns and chief villages, each applicant getting either a measure of rice and five cents (one penny), or a piece of calico.

In the afternoon came the great celebration on Galle Face Esplanade, Colombo, where from fifteen to twenty graceful pandals had been erected for the accommodation of the many who could not stand exposure to a tropical sun. Nothing can exceed the graceful beauty of such erections, when the Sinhalese and Tamils set themselves to do their best; loops of plantain and young coconut leaf, green moss and fern, and yellow olas, and clusters of coconuts, oranges, or other fruits, offer the best possible material for covering the bamboo framework that may be put together in a night.

It is computed that about 25,000 human beings of all classes and races, the vast majority clad in bright garments, varying from white to the richest and most brilliant hues, were assembled round the centre where the Governor read the Record of the Chief Events of the Fifty Years, received the Address from the inhabitants of Ceylon to their Gracious and Beloved Monarch, and made proclamation of the Queen's desire (in conjunction with her God-fearing subjects everywhere) to return thanks to Almighty God for the blessings of the fifty years; to see the Royal Standard hoisted and to hear the salute of fifty guns fired in honour of the Royal Lady who had reigned so long and so well. High festival as it was, the

quiet and orderly conduct of the crowd was the subject of emphatic and approving remark. Amongst the most interesting incidents of the day was the singing of the Royal Anthem by the Sunday-school children, and the procession of these and other young people, scholars in the various schools and colleges, to the number of about 2000. There were numerous processions of various races and religionists, including some seventy-seven Buddhist priests in bright yellow robes, men who must be better than their creed, if they sincerely joined in the thanksgiving to Almighty God. Salutes consisting of the cracking of long Kandyan whips were sources of curiosity to newcomers, while the chanting of both Malay and Sinhalese processions to well-known popular tunes produced much amusement. One of the most striking incidents of the day was the appearance of Arabi and three of his fellow-exiles—Mahmood Samy, Toulba, and Abdulal, at the head of the Muhammadan procession. Their appearance imparted an element of romance to the proceedings, reminding one of those “Arabian Nights Tales,” in which the Isle of Serendib figures so prominently. The most fertile of imaginations could not, some years ago, have anticipated that a contingent of Egyptian officers, exiled to Ceylon for rebellion against their own sovereign, should take a voluntary part in celebrating the Jubilee of a Queen whose army had defeated the forces which they had led in insurrection, and so rendered abortive their ambitious (or patriotic ?) designs.

The other three Egyptian exiles, Ally Fehmy, Mahamood Fehmy, and Yacoob Samy, preferred presenting an address at Queen's House, which the Governor received and promised to forward to Her Majesty. The following is a literal translation of their address written in Arabic :—

“MAY IT PLEASE YOUR EXCELLENCY,—With heartfelt

loyalty, we, the undersigned Egyptian exiles in this country, though few our number, have reason to approach your Excellency on this auspicious day set apart by your Excellency for the celebration, by the general public of this island, of the Jubilee of Her Gracious Majesty Victoria, Queen of England, and Empress of India, whom your Excellency as Ruler of this country represents, and we beg to address the following :—

“ No one would deny that for the period of fifty years during which Her Majesty has uninterruptedly occupied the throne, Her Majesty has been just and merciful, and the brightness of her reign has reflected all over the world, and been a source of gratitude which we always feel in our hearts, and of which we are full.

“ We pray for all those gracious and liberal gifts to us that Almighty God may bless Her Majesty and give her grace, prolong her glorious and beneficent reign, and give her health, happiness, and honour.

“ We must confess that, in our position which is known to all, the pain in the centre of our hearts, as strangers from our country, felt, has been removed since our stay in this country, by the prompt extension to us of relief and justice, by the many acts of kindness, humanity, and generosity done to us. All these acted as a remedy which cured the pain which we felt in our hearts, making room for our peace and comfort.

“ We have indeed, therefore, special reason to be most sincerely loyal and faithful, and to humbly yield to the feelings and inclinations of our hearts. We beg, therefore, to lay at the foot of Her Majesty's throne our unbounded heartfelt thanks, and to offer the same to your Excellency, as Her Majesty's great Representative in this country, in which we enjoy favours and overflowing justice.

“ We feel infinite happiness and pleasure that we are accorded the privilege of taking a part ourselves in the

enjoyments of this joyful, happy, and auspicious day, set apart for the honour and praise of Her Majesty the Queen."

Other addresses were presented to the Governor for transmission to Her Majesty by the people of Ceylon, the Legislative Council, the Planters' Association, which represents the backbone of the prosperity of the island, and the small Malay community. From the latter we quote a part :—

"We desire to offer your Excellency, as the representative of Her Majesty Queen Victoria, our sincerest and dutiful thanks for the manifold advantages we have received during the beneficent reign of Her Majesty, through her many noble representatives who ruled this island. It is with the proudest satisfaction we say, and in saying it we are but expressing the feeling of the entire Malay community, that no community has proved more loyal and faithful; and its loyalty and fidelity have stood the very best tests. Fifty years ago, when Her Majesty ascended the throne, the Malays constituted a Military Corps, they rendered valuable service abroad and in this island, which, although it has been only the land of their adoption, has, in consequence of the disbandment of the corps in 1873, become their home. A mere military corps has during the last fifty years made rapid strides towards material advancement, and what had been a mere corps of a few hundred fighting men has developed into a large, free, and independent community. This happy realisation is due to the beneficent rule of Her Majesty Queen Victoria. It nevertheless still retains its martial spirit, and we may assure your Excellency, should there ever be occasion for it, the Malays to a man would joyfully rally round the British Standard and fight to the death like good soldiers."

The different colleges of Colombo each had their own pandal, and a visitor would be very much interested in the Ceylonese lads trained in the Royal, St. Thomas's, and Wesley Colleges, in the Medical College, and also in the pandal headed, "Widyodaya College," inside of which



SIR ARTHUR GORDON.

were ranged in rows some seventy-five Buddhist students, clad in their yellow robes, these being with a few exceptions made of silk; while in front, in a *sanctum* all by himself, sat Sumangala, the high priest of Adam's Peak, and President of the College. These young celibates,

though they had their fans in their hands, did not make much use of them, but stared about and enjoyed the fun as much as any one else. What would the Buddha have said if he had seen them thus gathered to do honour to a *woman* (according to his dictum woman is—not sinful—but *sin* itself!); and to hear later on, when the school children were singing “God save the Queen,” a young monk chant a number of Pali stanzas, composed by the learned Sumangala himself, in honour of this same woman? In these pandals the official record was read in English, Sinhalese, or Tamil, by the leaders of the classes represented. Sir Arthur Gordon also read the Record through, and then proclaimed in Her Majesty’s name that the lands sold for default of payment of commutation rates, since the introduction of the Grain Commutation Ordinance into any province, which shall remain in the hands of the Crown, should be restored to their former possessors. He also announced that the following classes of prisoners—173 in number—had been released on that day as an example of Her Majesty’s mercy and clemency:—1st, all prisoners in prison for debt due to the Crown; 2nd, all women not undergoing imprisonment for very serious offences; 3rd, all prisoners whose sentences of imprisonment were shortly to expire.

From the official record of British progress in fifty years, prepared by the Governor, we quote the few items referring to Ceylon:—

In 1838 the Legislative Council of the Colony, created but not completed in 1833, received its full complement of members.

In 1844 the last remains of Slavery were wholly abolished.

In 1848 a slight insurrectionary movement took place in a part of the Kandyan districts, which is only worthy of mention in order to contrast it with the loyalty of all classes ten years later, on which the Governor of Ceylon was able safely to rely when in

1857 he sent all the available troops in this Island to assist in the suppression of the Indian Mutiny.

In 1856 Sir Henry Ward commenced the restoration of the long-neglected Irrigation System of the Island ; and in 1857 the ancient Village Councils were revived, chiefly with a view to the promotion and enforcement of Irrigation Works.

In the same year the first sod was cut of the first Railway in Ceylon.

In 1858 Ceylon was united with India by the Electric Telegraph.

In 1865 the Municipalities of Colombo and Kandy were established.

In 1868 the general scheme of Public Education now in force was adopted by the Legislature.

In 1870 legislative measures enabling the tenants of Temple Lands to commute their services were adopted, and in the same year the Ceylon Medical School was established.

In 1871 the powers of Village Councils were largely extended, and Village Tribunals instituted.

In 1875 the first stone of the Colombo Breakwater was laid by His Royal Highness the Prince of Wales.

In 1881 an Ordinance, which however did not come fully into effect until 1886, was passed, withdrawing pecuniary aid, saving in the case of vested life-interests, from all Ecclesiastical Bodies.

In 1883 a Code of Criminal Law and Procedure was passed, which came into operation at the beginning of 1885.

In 1885 Currency Notes were first issued by the Government.

In 1886 the Colombo Breakwater was completed.

The Population of Ceylon, which in 1837 was estimated at 1,243,066, and on the first census taken in 1871 was found to be 2,405,287, now amounts to about 3,000,000.

The Revenue, which in 1837 was £371,993, amounted in 1867 to £969,936, and in 1886 to Rs. 12,682,549.

The number of miles of Main Roads open in 1837 was about 450 ; in 1887 it was 3343.

The number of Estates in the hands of European Settlers in 1837 probably did not exceed 50 ; in 1887 it was over 1500. The development of Agricultural Industry which these figures denote is, in itself, the most remarkable feature in the History of Ceylon during Her Majesty's reign. It is a development which has changed the physical appearance of the country, and profoundly modified its social condition, and which is due to the energy and perseverance of men who have shown that they can bear adversity with fortitude as they sustained prosperity with credit.

The Royal Standard was then hoisted, and a royal salute of fifty guns was fired. Next the Volunteer Band, led by Mr. Lüschwitz, played "The National Anthem," while the children, led by the Rev. S. Coles, C.M.S., sang the same.

Processions closed the afternoon's proceedings, and effective displays of fireworks, with less effective illuminations, entertained a large concourse till midnight.

The chief permanent Memorial of the Jubilee has been the Ceylon "Victoria Home for Incurables."

The closing years of Sir Arthur Gordon's administration were very busy and fruitful ones, as has been already indicated in the account of public works undertaken by him. He was fortunately able to give such an impetus to railway extension as made the way clear for his successor, in whose time the lines projected by Governor Gordon to reach Bandarawella in Uva, to Galle and Karunegala will be completed. There remain the extension from Galle to Matara, and the Northern or Jaffna slow-speed light railway. In Irrigation works, Sir Arthur Gordon did an immense deal, but Sir Arthur Havelock has had speedily to relax any fresh efforts in consequence of the paddy tax abolition. There is no abatement, however, in the expenditure on establishments, which are rather, as well as famines, increasing. A day of reckoning cannot be far off if this goes on. A satisfactory extension of the Volunteer movement, including the enrolment of a body of Mounted Infantry among the Planters, has taken place in 1891-2. The Colony, and especially the Tea planters, are making most commendable efforts to arrange for full representation at the Great Chicago Exposition, to which the Hon. J. J. Grinlinton has been appointed Commissioner. The sum of £20,000 is likely to be spent altogether on the Ceylon Court.

The position and claims of the Colony, and especially

of its great tea planting industry, were very fully brought before the British public during 1892, by the author in Lectures before the Royal Colonial Institute, and the London Chamber of Commerce (see Appendices), as also in letters to, and interviews reported by, the press.

A very interesting chapter might be written on "What the British have done for Ceylon"—not only in material improvements, and provision against famine, by roads, railways, irrigation works, etc., but through "the Roman Peace" protection of life and property, strict and impartial administration of justice, the great spread of education, and the promotion of health and alleviation of suffering and disease through the multiplying of hospitals, dispensaries, and doctors, the construction of waterworks and drainage, etc. What would happen if the British left Ceylon might be judged from the standing feud (sometimes issuing in riots) between the Buddhists and Roman Catholics; and between the Sinhalese and Moormen (Mahommedans) in certain districts. The decennial census was the great event of 1891—the main results will be found in Appendix No. XII.

Nowhere in the British Empire are there more loyal or contented subjects of her Most Gracious Majesty than in "Lankâ," "the pearl-drop on the brow of India."

APPENDIX I.

CEYLON : ITS ATTRACTIONS TO VISITORS AND SETTLERS.

(From the "Journal of the Royal Colonial Institute." No. 5.
Session 1891—92. *April*, 1892.)

THE Fifth Ordinary General Meeting of the Session was held at the Whitehall Rooms, Hôtel Métropole, on Tuesday, March 8th, 1892.

The Right. Hon. the Earl of Aberdeen, a Vice-President of the Institute, presided.

Amongst those present were the following :—

Mr. H. D. Acland, Mr. Osborne Aldis, Mr. E. E. Anderson, Mr. G. G. Anderson, Mr. James Anderson, Mr. John Anderson, Mr. and Miss Anderson, Mr. Andrews, Captain Wm. Ashby, Rev. Dr. J. W. Ashman, Mrs. J. W. Ashman, Mr. J. Astleford, Mr. and Mrs. Charles Atkinson, Mr. P. Badcock, Mr. J. W. Bakewell, Mr. E. A. Reynolds Ball, Mr. John W. Barsham, Mr. H. Bergamin, Mr. W. W. Bonny, Mr. Stephen Bourne, Right Hon. Sir George F. Bowen, G.C.M.G., Mr. F. R. Bradford, Sir John Cox Bray, K.C.M.G., Mr. J. G. Brex, Mr. C. E. Bright, C.M.G., Dr. A. M. Brown, Mr. W. L. Brown, Miss Helen L. Burk, Mr. S. M. Burrows, Mr. John Capper, Mr. R. W. Chamney, Mr. and Mrs. Church, Mr. and Mrs. J. F. Churchill, Mr. and Mrs. Percy Clarke, Misses Clarke (2), Mr. F. Collison, Mr. E. A. Collyns, Mr. W. F. Courthope, Mr. and Mrs. George Cowie, Miss Cowie, Professor R. Davids, Mr. G. Leopold Davies, Mr. H. A. de Colyar, Madame de Laure, Sir Alfred Dent, K.C.M.G., Mr. and Mrs. J. B. Donkin, Mr. G. Smytton Duff, Colonel W. J. Engledue, R.E., Mr. J. P. Evill, Mrs. and Misses Ferguson, Mr. J. A. Ferguson, Mr. William Flux, Mr. Arthur Folkard, Mr. H. L. Forbes, Major Forbes, Mr. Angus Fraser, Mr. John Fulton, Sir James Garrick, K.C.M.G., Miss Gavin, Mr. E. F. Gits, Right Hon. The Earl of Glasgow, G.C.M.G., Mr. J. P. Goates, Mr. Albert Golden, Mr. and Mrs. F. G. Goodliffe, The Hon. Sir Arthur H. Gordon, G.C.M.G., Mr. G. W. Gordon, Mr. J. W. Gordon, Mr. and Mrs. William Gow, Mrs. Graham, Mr. J. M. Grant, Mr. Henry Grey, Mr. Sebright Green, Sir Samuel Grenier, Mr. C. H. Greswell, Rev. H. P. Greswell, Mr. T. Risely Griffith, C.M.G., Mr. J. C. Haddon, Mr. John Haddon, Mr. E. Haggard, Mr. J. Hamilton, Mr. Reginald C. Hare, Mrs. Hayes, Miss Henderson, Mr. T. A. Hewitson, Mr. and Mrs. Heyman, Mr. A. Heilemann, Mrs. James Hinton, Mrs. Carey Hobson, Sir Arthur Hodgson, K.C.M.G., Rev. A. Styleman Herring,

Mr. J. Hughes, Mr. E. B. Hurley, Mr. T. W. Irvine, Mr. Sydney Johnston, Mr. F. Jones, Mr. J. Douglas Jones, Mr. H. J. Jourdain, C.M.G., Mr. and Mrs. James Laughland, Mr. W. Law, Mrs. T. Leak, Miss D. M. Leake, Miss E. M. Leake, Mr. R. M. Leake, Mr. W. Martin Leake, Dr. James G. Leask, Mr. Owen Lewis, Mr. R. Lloyd, Mr. A. L. Low, Mr. Hector R. Macfie, Mr. W. G. MacGregor, Mr. A. Mackenzie Mackay, Rev. R. Mackay, Mr. Mackenzie, Mr. J. McLean, Mr. T. M. McLean, Mr. J. Martin, Mr. W. A. Massingham, Mr. W. Melhuish, Mr. S. P. Molesworth, Mr. J. M. Morgan, Mr. J. R. Mosse, Mr. F. P. Murray, Mr. Alex. Myers, Mr. H. H. and Miss Newill, Mr. A. M. and Miss Nicholls, Mr. E. Noyce, Mr. J. Offord, Captain Orman, R.N.R., Mr. J. L. Osborn, Mr. P. Berry Owen, Mr. and Mrs. George Paterson, Mr. Westby B. Perceval, Mr. F. Peter, Mr. B. T. Price, Mr. and Mrs. W. Raikes, Mr. P. Redpath, Mr. Robert Reid, Rev. Dr. W. J. Richards, Captain W. P. Roche, Mr. J. Rogerson, Mr. Alex. Ross, Mr. W. R. Cadogan Rothery, Mr. H. B. Rutherford, Mr. A. Salaman, Mr. J. Maynard Saunders, Mr. C. J. Scott, Sir Walter J. Sendall, K.C.M.G., Mr. H. F. Shipster, Mr. George Simpson, Miss E. Simpson, Mr. and Mrs. James Sinclair, Mr. S. Skrive, Mr. Harcourt B. Slade, Mr. Harry H. Slade, Mr. R. Slazenger, Mr. C. E. Smethurst, Miss A. Smith, Sir F. Villeneuve Smith, Mrs. Granville Smith, Mr. H. A. Smith, Mr. R. Fryer Smith, Mr. W. G. S. Smith, Mr. E. R. Speirs, Miss Sprigg, Mr. A. G. Stanton, Mr. G. Steele, Mr. T. Stephenson, Mr. and Mrs. John Stuart, Mr. R. Swan, Mr. J. H. Symon, Mr. G. W. Taylor, Mr. J. R. Tenniel, Mr. H. Tichborne, Mr. G. A. Tomkinson, Mr. and Mrs. B. Travers, Miss Florence Travers, Mr. P. B. Vanderbyl, Mr. E. Alford Wallace, Miss Warman, Mr. R. C. Want, Mr. W. C. Watson, Mr. R. Grant Webster, M.P., Mr. W. W. Wheeler, Mr. J. F. Whyte, Mr. C. C. Wilson, Mr. J. Wilson, Miss Wilson, Mr. and Mrs. Woodroffe, Mr. W. Wingrove, Mr. W. Basil Worsfold, Colonel and Mrs. J. S. Young, Mr. R. A. Zeederberg, Mr. J. S. O'Halloran (Secretary).

The *Chairman*, LORD ABERDEEN : In commencing the proceedings of what promises to be a very interesting evening, we cannot but feel that a shadow is to some extent cast over the gathering by the recent death of a very distinguished and much-valued member of this Institute; I mean the late Sir John Coode, who was for eleven years one of the Council. As we all know, he earned great fame in the noble profession to which he belonged; but of course we think of him to-night more especially in relation to the development and welfare of the Colonies. In his professional capacity he visited the Australian Colonies, New Zealand, South Africa, India, the Straits Settlements, and Ceylon, where the Colombo breakwater, that great work, remains as a monument of his skill. The use to which, as regards this Institute, he put his great experience and distinguished position—as, for instance, in materially helping forward the arrangements for obtaining a charter for this Institute and securing its magnificent site and commodious building—constitutes him one of the benefactors of the Institute. I have to remind you also of the recent demise of another distinguished man, Sir William Gregory, who—now a good many years ago—was a very successful and distinguished Governor of the Colony about which we are to hear to-night. He was a man of personal charm and large abilities, and we cannot but think

of his death as a great loss in connection with Colonial as well as general interests. Turning to the present occasion, it is very gratifying to observe that we have with us several distinguished men, and in the first instance I will mention the new Governor of New Zealand, the Earl of Glasgow. It will be pleasing to him to know that among those who gladly take this opportunity of offering him hearty congratulations and earnest good wishes there are past Governors of New Zealand, who, I am sure, will be among the very first to render him their felicitations. Among other friends with us, and one of these past Governors, is Sir Arthur Gordon: I ought, perhaps, to have some little delicacy in alluding to a relative; but I venture to remark that he has been not only the Governor of New Zealand but of many other Colonies, and it is interesting to note that a large proportion of those who served with him as lieutenants, or in some way had been upon his staff, are now occupying very important positions as Governors of Colonies and otherwise, which says something for the excellent training which they enjoyed while under him. We have also the pleasure of the company of Sir John Bray, Agent-General for South Australia, and I may remark that I am one of those who have had recent experience of his kindness and hospitality in South Australia. I must not linger longer on this topic, but I cannot help remarking that one of the attractions of the gatherings connected with this Institute is that they give us opportunities of meeting men like those I have mentioned, who are doing and have done so much to maintain the dignity and prosperity of this vast Empire in various parts of the world. But there is one other gentleman to whom I must allude—I mean the veteran Sir George Bowen, senior member of the great profession and great calling of Colonial Governor and Administrator. And now I must proceed with few words, but with all heartiness, to introduce the lecturer. I may say that Mr. Ferguson has for long occupied a most prominent and useful and influential position in Ceylon. I suppose you could scarcely find a man more thoroughly versed in all the varied aspects of the life of the Colony, its interests and trade. Without further preface I beg to call upon Mr. Ferguson to read his Paper.

Introductory.

THERE is no part of this world's surface, perhaps, about which more has been written than about the Island of Ceylon. Writers of far distant ages and of many different countries have made it their theme. "Lanka the Resplendent," the island of jewels, the land of mystery and romance, was well known and greatly admired in the Early Ages by the people of India, Burmah, Siam, Cambodia, and China. As "a pearl-drop on the brow of India," and the land of "the hyacinth and ruby," it became familiar before the Christian era to the Greeks and Romans, who gave it the name embalmed by our own poet Milton in the lines—

From India and the golden Chersonese,
And utmost Indian isle, *Taprobane*.

Ceylon was the "Serendib" of Arab and Persian geographers and voyagers, and is the scene of many of the adventures recounted in the familiar story of Sinbad the Sailor. The Middle Ages, again, produced many manuscripts about it, and when, four hundred years ago, the Portuguese had effected the conquest of its maritime provinces, their historians began to write freely about "the island of spices," and were followed a century and a half later by those of the Dutch. Nor have British voyagers and travellers failed to contribute to the general stock of literature on the subject; for, apart from the unique and specially interesting narrative by Robert Knox of his ten years' captivity, published in London in King Charles II.'s time, the present century has witnessed the issue of a long and varied list of English books on Ceylon. These deal with its history, people, literature, languages, industries, resources, government, etc. And even within the past few months, I may add, no less than four London publishers have brought out works treating of the same land, while one of the best novels of romantic adventure of the season (according to the *Athenæum*) is by a Ceylon writer, its scene being laid in the vicinity of the island.

With all these multitudinous writings in view, and the great array of available works of reference, guide-books, directories, and official publications, it is no easy matter to say anything about Ceylon that may not appear hackneyed or familiar.

Nevertheless, some useful purpose may be served in putting before the travelling portion of the British public and the constantly increasing numbers who yearly pass between Australasia, the Far East, and the Mother Country a certain number of the attractions offered by Ceylon to visitors or settlers.

Situation and Means of Access.

First, as to situation. The island is a central place of call for the eastern hemisphere; and the genius and professional skill of a great engineer well known in the Royal Colonial Institute (the late Sir John Coode) having devised a magnificent breakwater protecting a commodious harbour, Colombo has of recent years developed into a port of first-class importance. Its annual record of tonnage follows close on the figures for the British metropolis, Hong Kong, and one or two more of the busiest shipping resorts. Steamers from London, Liverpool, Marseilles, Genoa, Naples, Brindisi, Odessa, Alexandria, and Bombay call regularly at Colombo, passing on, it may be, to Madras, Calcutta, The Straits, China, or some of the Australian ports. The great steam-navigation companies trading with the East or South—the P. and O., the Orient, the Messageries Maritimes, the Norddeutscher Lloyds, Austro-Hungarian Lloyds, the British India Company, the Rubattino, the Star, City, Clan, Glen, Ocean, Holt's, and several other lines, make Colombo a regular port of call; and it is the meeting-place for mail steamers from Europe, Australasia, China, and India, where mails, passengers, and light cargo are generally exchanged or transferred. A ready means of access, whether by swift first-class or by slower and more

economical steamers from Europe or Australia, is, therefore, one of the attractions Ceylon offers to visitors. From London to Colombo the voyage can now be accomplished in about three weeks, and at a cost of little more than that of living ashore in a first-class hotel. For the greater part of the year, too, the seas traversed are smooth enough to suit any fair-weather sailor; while what is seen and learnt on the way at places of call along the Mediterranean, Suez Canal, Red Sea, and Indian Ocean may well be regarded as no inconsiderable part of a liberal education. Moreover, those who wish still further to limit the sea voyage can embark either at Genoa, Naples, or Brindisi (and by-and-by probably at Salonica) on one of the magnificent mail steamers which make the run thence to Ceylon in from fifteen to thirteen days, if the commander and his engineer so desire. In this direction there is no doubt room for further improvement if full steam-power is utilised; and, just as the voyage across the Atlantic has been reduced to between five and six days, so that between London and Colombo (under 7,000 miles) may yet be regularly accomplished in about seventeen or eighteen days, including stoppages. But in the meantime we may well remind many persons who annually migrate to Algiers or Egypt to escape an English winter that a few days more of a pleasant voyage, with little additional trouble and expense, will carry them to one of the fairest, most genial, and most interesting islands in the tropics—

An Eden of the Eastern wave.

Among other attractions of Ceylon connected with the situation is its comparative freedom from cyclones, hurricanes, earthquakes or other volcanic disturbances. The great storms which periodically agitate the Bay of Bengal, and sometimes, in terrific cyclones, carry destruction to shipping and property on the Hooghly and along the coast as far south as Madras, seldom reach the island, unless it be at its extreme northern coast. Again, if Java and the Eastern Archipelago boast of a richer soil than is generally to be found in Ceylon, it is owing to the volcanic conditions which make them the scene of frequent earthquakes and eruptions, the utmost verge of which just touches our eastern shore at Batticaloa and Trincomalee in scarcely perceptible undulations. On the west, again, Ceylon is equally outside the region of the hurricanes which, extending from the Mozambique Channel, visit sometimes so disastrously the coasts of Madagascar, Mauritius, and Zanzibar. The wind and rain storms which periodically usher in the monsoon occasionally inflict damage on crops, but there is no comparison in this respect between the risks attaching to cultivation in our island and those experienced in Java and Mauritius.

Natural Beauty.

But now as to the place itself. It has been well and truly said that "Ceylon, from whatever direction it is approached, unfolds a scene of loveliness and grandeur unsurpassed, if it be rivalled, by

any land in the universe." No one, unless his visit be coincident with the height of the rainy season, is disappointed with the beauty of the outlook and the vegetation of the island. It is one great botanic garden, and the paradise therefore of the botanist; but it is scarcely less interesting to the naturalist generally, to the antiquarian, the orientalist, and the sociologist—in a word, to the intelligent traveller. It has always struck me as wonderful that to Lord Tennyson, who had never seen the tropics with his own eyes, we are indebted for the most adequate descriptions of tropical vegetation and scenery. "Enoch Arden," for instance, contains passage after passage exactly realised in Ceylon. Visitors from America and Northern India have vied with those from Europe and Australasia in going so far as to pronounce Ceylon, for natural beauty, historical and social interest, to be "the showplace of the universe," and I have now, to some extent at least, to justify such exuberant language. The island is well-nigh surrounded by a coral reef, across which, during the monsoons,

The league-long rollers thunder on the shore;

a shore covered for the greater portion of its circuit with one of the most useful and graceful of palms, of which it has been sung:

Those coco-palms not fair in woods,
But singly seen and seen afar,—
When sunlight pours its yellow floods,
A column and its crown a star!

These palms grow far out, even on the sandy beach, so that often the spreading leaves seem to kiss the advancing waves; and from the coast-line to the top of our highest mountain, at 8,296 feet above sea-level, there is no spot of ground without its vegetation, more or less attractive, interesting, or curious. Is it any wonder, then, that the belief should have sprung up, and the tradition have spread, especially among Mahommedans, that this sunny, luxuriant, highly-flavoured island became the home of Adam and Eve after their expulsion from the Garden of Eden? To this story we owe the fact that the reef running between the island and India got the name of Adam's Bridge, while the most conspicuous and majestic (though not the highest) mountain in the island became Adam's Peak. This same tradition was recalled with thankfulness by Arabi and his co-Egyptian exiles when deported to Ceylon, though a residence of some years in Colombo with its comparatively moist climate, and with nothing to do, no object in life, has made Arabi, at least, long to get back to a point nearer home. At the same time, I may say, in passing, that his longing is no reflection upon the salubrity of the island, for, even in respect of a dry climate, the exiles, if they choose to move to the north or east, could enjoy conditions very much more allied to those of Egypt or Syria.

In Colombo.

To return to the visitor supposed to be arriving at Colombo.

After gazing on the picture of living green always presented along the coast, he finds in the harbour itself, with its curious variety of native vessels, boats and boatmen, much to arrest attention. But still more will he feel, if fresh from Europe or Australasia, that he has entered into a new world as he steps ashore, and finds himself ere long in busy streets teeming with representatives of nearly every Eastern race and costume. Red and yellow are the prevailing colours, and both harmonise well with the brown skins in the brilliant sunshine. The effeminate-looking but upright Sinhalese, of course, predominate, the men as well as women wearing their hair coiled behind in heavy knots (the former using tortoiseshell combs, the latter silver or other pins); the darker and more manly Tamils, with Hindus of every caste, come next. "Moormen," or Arab descendants, among them true sons of Father Abraham in feature, "bearded like the pard," are numerous; with Malay policemen or messengers; Afghan traders, tall, muscular men in white robes, often in big boots; a few Parsees, Chinese, and Kaffirs; besides Portuguese, Dutch, and other European descendants, with a sprinkling of the paler faces of Europeans, making up the crowd. Colombo has two or three first-class, besides some minor, hotels, and the stranger is speedily surrounded by native pedlars, especially jewellers, with their supply of gems, from rare rubies, sapphires, cats'-eyes, moonstones, and pearls to first-class "Brummagem" imitations.* Among the gem-dealers, and in the crowded streets or bazaars of the native town, visions of the "Arabian Nights" are conjured up, and one recalls Miss Jewsbury's lines on witnessing the scene:—

And when engirdled figures crave
Heed to thy bosom's glittering store,
I see Aladdin in his cave;
I follow Sinbad on the shore.

The scene to the new arrival is, therefore, bewilderingly interesting, not only in the novel life, but also in the striking vegetation, great flowering trees like the *Erythrina indica*, the *Poinciana regia*, the *Lagerstræmia regina*, or the delightful tulip and cabbage trees, all tending so much, with palms and crotons, ferns, and creepers, to set off Colombo bungalows.

Colombo with its 130,000 people, occupying some eleven square miles, is one of the healthiest as well as most beautiful of tropical cities. Very delightful are the many drives available over the smoothest of roads through the "Cinnamon Gardens"; very interesting its fine Public Museum, due to the taste and enlightenment of Governor Sir William Gregory; † then there are its old buildings, such as the great Dutch Church of Wolfendahl, its Buddhist and

* I always tell a newcomer that, unless he is an expert, he can probably buy Ceylon gems to greater advantage in London than in Colombo.

† Here the lecturer paused to express his deep regret that he must now say "the late Sir William Gregory, in consequence of the death, on March 6th, of one who was a wise Governor and true friend of Ceylon and her people."

Hindu temples, Oriental, Royal, and other colleges ; the Kelani River, and the Bridge of Boats—soon to be a thing of the past—and its beautiful, extensive, and winding lake, which, whether gleaming in the sunshine or darkening in the storms of the monsoon, never loses its charm. From Colombo the visitor has a great variety of trips up and down, across and around the island, now made easily available, if he has the time to spare. There are local guide-books to meet nearly every contingency ; but one of the most adequate, correct, and convenient series of routes for the traveller yet compiled is that supplied in the new edition of "*Murray's Handbook to India and Ceylon*," by our last Governor, Sir Arthur Gordon. It is impossible that I can notice more than a few of the features of two or three of the main routes. The southern route from Colombo to Galle—ere long to be served all the way by railway, through the enterprise of Governors Gregory, Gordon, and Havelock—runs close to the sea, forming a continuous avenue, the peculiarity being that for seventy-two miles one is never out of sight of native house or hut, or coconut palm. At Kalutara (the Richmond of Ceylon) and at other points, large or smaller rivers or arms of the sea are crossed ; here and there glimpses of the interior are obtained ; the purple zone of hills becomes visible, above which, sometimes clearly outlined against a glowing sky or dressed in soft white clouds, may be noted the strikingly prominent and far-famed Adam's Peak. Grassy expanses break the uniformity of the forest of palms and other fruit trees, and we frequently realise that

So fair a scene, so green a sod,
Our English fairies never trod.

The Trip to Kandy.

But after an inspection of Colombo and its neighbourhood, and the gaining of some familiarity with the coconut and cinnamon culture of the western coast, the great desire of the visitor must be to pass, by the splendid lines of railway which the Colony owes to the energy of such rulers as Sir Henry Ward, Sir Hercules Robinson, Sir William Gregory, and Sir Arthur Gordon, from the warm and sometimes uncomfortably hot low country to the grand mountain plateaux and ranges of the interior. Here lies the territory comprised within the Kandyan Kingdom, which maintained its independence all through the Dutch and Portuguese eras, until finally conquered by the British in the year in which Waterloo was fought. The railway journey from Colombo to Kandy, rising from 1,600 feet above sea-level, is in itself a great treat. Passing away from the maritime belt of palms and the suburbs of Colombo, the traveller observes diversified culture in fruit and vegetable gardens, in cinnamon and sugar-cane, before coming on a wide expanse of rice fields, interspersed with topes of fruit trees and belts of jungle. Then, after some thirty miles, there are more plantations of coco-

nuts in rich river valleys,* and as the hills are approached, fields of dark green Liberian coffee are interspersed with the lighter-coloured cacao shrub (the chocolate plant), whose large ripe crimson pods are suspended from the stems; and then the brighter green of the tea bush in successive plantations is noted. Anon, as the train slowly climbs into the mountains, rice fields carefully terraced mark the sides of valley and gorge, the vivid green of the young paddy often contrasting in a wonderful way with the darker colouring of plantations or jungle. But at Kaduganava, 1,700 feet above the sea, we are merely touching the fringe of the great planting enterprise of the Central and Uva provinces. A run thence of ten miles, or seventy-four from Colombo, brings us to Kandy, the last capital of a long line of kings; a perfectly unique and charming highland town, set gem-like in an amphitheatre, with lake, palace, pavilion, and temples, the largest river in the island close by, and the Royal Botanic Gardens, almost the most beautiful in the world, only three miles away at Peradeniya. Kandy is, among other things, the most sacred of Buddhist towns, on account of its Maligawâ temple, with the so-called relic of Buddha's tooth, venerated throughout Burmah, Siam, and even China—so that here we have the "Mecca" or "Jerusalem" to which millions of Buddhists in the Far Eastern lands turn.

The Higher Planting Districts.

The visitor bent on seeing the higher regions of the interior and the great scenes of plantation industry will continue his journey from Kandy by railway to Gampola, Nawalapitiya, Hatton, and Nanu-oya. He can also see interesting country and splendid cacao plantations in the Dumbera valley, near to Kandy town, or close to a northern branch of the railway running to Matale. Travelling southward, and climbing another 2,000 feet, he will get to the entrance of the more extensive planting districts, now almost entirely devoted to tea (though with some coffee and cinchona), of Dikoya, Maskeliya, and Dimbula. These comprise nearly 100,000 acres of cultivated land, of which no less than 85,000 are now under tea, the staple planting product of the island. All this has been formed out of what was only twenty-five years ago, in the time of Sir Hercules Robinson, an almost unbroken expanse of upland forest, and which some years earlier had been the favourite hunting region of Sir Samuel Baker and other mighty sportsmen. But now we have in this ancient "Wilderness of the Peak" the homes of hundreds of settlers on tea, coffee, and cinchona plantations. These planters, many of them with their wives and children, live in comfortable as well as picturesque bungalows, and direct the labour of thousands

* Often there is visible in full flower a solitary Talipot palm—the grandest of the family, and the most wonderful of floral displays, on a tree fifty feet high and upwards, and which flowers only once in its life, after sixty or more years, and then dies down.

of contented, well-paid native labourers : Tamils from Southern India, who are free to come and go at a month's notice ; or Sinhaless from the low country, who chiefly supply the domestic service, and are also artificers, cartmen, etc. Indeed, villages of the latter and of petty traders with their shops, etc., have sprung up as if by magic where a generation ago for a hundred square miles there was no human life. This region is made readily accessible to the visitor by a grand mountain railway, which is open for 132 miles from Colombo to an altitude above the sea-level of 5,290 feet, successive sections of which beyond Gampola we owe to the energy of such Governors as Sir Hercules Robinson, Sir William Gregory, Sir Arthur Birch and Sir James Longden. It remained, however, for Sir Arthur Gordon, after many years of controversy, to secure sanction for the crowning and most important section, by which, in the course of next year, this first-class main line will be carried from Dimbula across the mountain plateau, attaining an altitude of over 6,000 feet, and passing into the important and fertile province—and ancient principality—of Uva. I shall deal with this great work in its probable economic results for settlers later on ; but meantime, from the point of view of the visitor and traveller, there can be no doubt of the entire success of the Colombo-Kandy-Dimbula-and-Uva line as one of the great " scenic railways " of the world, if I may use an American expression. When Sir Charles Dilke, as a young man, travelled round the Anglo-Saxon world of Dependencies and independent States constituting " Greater Britain," he wrote that only in New Zealand had he seen anything to equal the beauty of the mountain form, scenery, and vegetation of the Central Province of Ceylon. Big rivers, mountain torrents, cascades, and waterfalls of no mean eminence diversify the landscape ; and though there may be no special beauty about wide areas of carefully-tended tea or coffee shrubs, even though dotted here and there with picturesque cinchona topes, or occasionally diversified by the vivid colouring of grassy patenas, yet never is the background of forest and mountain range absent. But neither Sir Charles Dilke nor any past visitor to Ceylon has enjoyed so great a treat in tropical upland scenery as will be afforded by the new railway route, by which the traveller will be enabled to pass from the western slopes of the central mountain range, through sylvan scenes on the plateau, until a burst is made by means of a series of tunnels and viaducts into the magnificent Uva amphitheatre. Here rolling grassy uplands and well-cultivated sheltered valleys, with irrigating streams glancing in the sunlight, are set as a lovely picture in a border of the darker green of plantations and forest, while the framework is found in the lofty peaks and ridges of the everlasting hills.

The mountain sanatorium of Nuwara Eliya—with its Lake Gregory, the drive to Hakgalla Experimental Gardens, and the morning or afternoon climb to the top of Pedrotallagalla, the highest point in the island—is of importance to the health of residents toiling on the plains, and is not without interest to visitors. But the ascent of Adam's Peak will be more to the taste of the enterprising traveller. From the Maskeliya side, on which tea

plantations run up to 5,000 feet, there remain only a little over 2,300 feet to climb through jungle until the rocky cone is reached and the ordeal is not a trying one. But very much more difficult, and, of course (in Buddhist eyes especially), far more meritorious, is it to start from Ratnapoora, "the City of Gems," lying on the Kaluganga, some distance south of the peak, and only sixty feet above sea-level. A recent traveller (Dr. Alan Walters), with some experience of mountain climbing, declares the ascent of Adam's Peak (from this side) to be more arduous than that of any mountain of the same altitude (7,352 feet) with which he is acquainted, the stifling heat in the low country of course adding to the difficulties; while the last part, where the climber is described as hanging by a chain on the bare rough face of a hot white mountain cone, is an experience best suited to Alpine Club men. Nevertheless, the same cone can be easily surmounted from the north-eastern side, even by ladies, and the reward is great; for the panorama available from the summit is among the grandest in the world, few other mountains presenting the same unobstructed view over land and sea. One thinks of Etna or Vesuvius, or still better of the Japanese Fusi-yama, but in each case without the volcano, there being no evidence of seismic disturbance in Ceylon. It is no wonder that Adam's Peak should be classed among the list of sacred mountains. Rising in an isolated, well-defined pyramid, it stands as a sentinel to guard the enchanted land within the zone of lofty hills that encircle the chief Kandyan province, while on the west and south the uninterrupted view from the summit extends far over undulating plains whose rivers in silver threads wind their way to the palm-fringed shore of the Indian Ocean.

On the Peak both sunrise and sunset afford experiences not readily forgotten; but most striking of all is the peculiar appearance known as the "Shadow of the Peak," which is seen, in certain favourable conditions of the atmosphere, at sunrise. An enormous elongated shadow of the mountain is projected to the westward, not only over the land, but over the sea, to a distance of seventy or eighty miles. As the sun mounts higher, the shadow rapidly approaches the mountain, and appears at the same time to rise before the spectator in the form of a gigantic pyramid. Distant objects, a hill or river, or even Colombo itself, forty-five miles away, may be distinctly seen through it, so that the shadow has been compared to a veil hung between the observer and the low country. It seems to rise rapidly, approach, and even fall back on the spectator, until in a moment it is gone.

In the pilgrimage season the so-called footprint and shrine on Adam's Peak are the resort of thousands of the people, who may be seen winding up its steep sides, often carrying with them very aged relatives, to gain the merit which Buddhists especially connect with the pilgrimage; and the scene on the top, with an assembled crowd responding to their priests and bursting forth into loud cries of "Sadhu!" as the morning sun appears, is very striking.

Gem-digging.

From Ratnapura, again, interesting visits can be paid to the Gem-digging region in the neighbourhood; for, though some discredit has been cast upon the enterprise through certain recent experiences of English capitalists—not wisely directed, as some of us think—yet it is undeniable that from time immemorial this part of Ceylon, and other districts, too, have yielded valuable gems in great variety, and sapphires, rubies, and cats'-eyes are sometimes found worth a prince's ransom, besides many others less rated. Only last year, single uncut stones, valued at from £1,000 to £1,500 sterling, were dug out, and the calculation seems a safe one that, including wives and children, not less than twenty thousand of the Sinhalese are dependent on this gem-digging industry, so that the total finds of marketable stones cannot well be less than £20,000 a year. Of course the greater portion of the gems found are never reported publicly, or at the Customs, but are taken away on their persons by native dealers to one or other of the many Rajahs' Courts in India, where ready purchasers are found, just as nearly all the pearls obtained at each of our Ceylon pearl fisheries—to be alluded to shortly—go in the same direction. None of the English syndicates that have hitherto engaged in gem-digging in Ceylon have, as far as I know, taken the full precautions—through machinery, etc.—that are adopted in working the diamond fields in South Africa; and significant stories are afloat of how native employes found it expedient to disappear in the middle of their engagements, and never returned to claim balances due of wages, not ordinarily forsaken by a Sinhalese or Tamil labourer. The inference is clear, that the excuse of sickness or the death of a "grandfather" covered the determination to secrete and bolt with a gem dexterously picked up and of more or less value.

Plumbago Mining.

But, whatever may be said of the Ceylon gem-digging industry—and about the interest attaching to it for the visitor there can be no cavil—it is indisputable that both interest and importance attach to the great native mining of plumbago or graphite, the one mineral of commercial importance (apart from precious stones) that figures largely in our Customs returns. The exports of plumbago I may at once refer to as rising in quantity for decennial periods as follows:

1840 = 981 cwt.	.	.	.	1880 = 205,738 cwt.
1850 = 23,021	"	.	.	1890 = 372,502
1860 = 75,660	"	.	.	1891 = 400,268
1870 = 85,248	"	.	.	"

Most of the pits or mines—for some of them are several hundreds of feet in depth—are worked in a very primitive fashion; but

European methods are now beginning to be applied through pumping and other machinery. The preparation of the plumbago for packing and shipment in stores and factories in Colombo chiefly by Sinhalese women is very interesting to visitors; and they should also try to see the peeling, drying, and packing of cinnamon bark, the manufacture of coconut oil—for which there are some of the largest hydraulic presses of the kind in the world—and the final processes connected with other products before shipment.

Further Excursions and Sport.

Returning to Ratnapura, a boat trip thence for thirty miles by the Kaluganga to the coast at Kalutara can be recommended to the visitor desirous of seeing something of river and low-country forest scenery in all their wild beauty and luxuriance. Equally enjoyable are boat trips through the backwaters, canals, and lagoons, along the western and some parts of the eastern coasts of the island, so admirably described by Miss Gordon Cumming in her "Two Happy Years in Ceylon."

Time would fail me to touch on many other excursions open to visitors, and especially to those desirous of sport, whether it be the hunting of elephant, wild buffalo, bear, or crocodile in the low country, or of elk in the hill regions, and of cheetah common to both. The Hambantota district of the Southern Province is the favourite resort of the visitor-sportsman seeking for big game, to which experienced Malay trackers are ready enough to guide them. Here also may be seen, by the seaside, pans from which salt of the purest description is gathered, generally by prison labour, for island consumption and sometimes for export. But of late years, at intervals, there have come to the island parties of visitors (including ladies) determined to see the island more thoroughly, and to take advantage of such sport as offered along several comparatively lonely routes. These visitors travel with the aid, chiefly, of light bullock carts along the roads leading through the far south, east, or north of the island. To such the journey from the Southern Province into Uva *via* the Ella Pass—a scene combining sublimity and beauty to an almost unequalled degree—and thence by a good carriage road to Batticaloa, on the eastern coast, will always be attractive.

But above all other trips available in the island, that to the "BURIED CITIES"—the ruins of the ancient capitals of Anuradhapura and Pollonaruwa—will probably be the most interesting to the intelligent visitor. Sir William and Lady Gregory are no mean judges on such a subject, and they have told me that nowhere throughout India have they seen anything more interesting or attractive than the remains of Anuradhapura. This was the capital of Ceylon 2,400 years ago, and became a place of great magnificence and population, covering a large area about the commencement of the Christian era, and continued to prosper for some centuries following. Eventually the irruptions of Tamil invaders

from Southern India wrought its ruin, and after 1,200 years of pre-eminence, this capital had to be abandoned, the place falling quickly into decay, population departing or dying out, while the jungle buried the town out of view. There still stood up through the forest, however, four great dagobas, artificial bell-like structures built over relics of Buddha, rising from 150 to 360 feet, and covering in one case as much as eight acres with a mass of bricks sufficient to build a solid wall ten feet high from London to Edinburgh. The place altogether became one of desolation, and Robert Knox, the Englishman escaping from the Kandyan territory over 200 years ago, in travelling down a river-bed, described the neighbourhood as "a world of hewn stones, which, I suppose, formerly were buildings." "Buried" the ancient city practically remained, and the district generally neglected, until about twenty years ago, when Sir William Gregory, as Governor, turned his attention to the old capital and province. His good work was greatly extended by Sir Arthur Gordon, and it would be a long though interesting story to tell you of what has been effected through the restoration of irrigation tanks and channels—some of them of enormous extent—the construction of roads, bridges, and other public works by engineers, amongst whom are well-known Fellows of this Institute.* Apart from the construction of reproductive works for the benefit of the natives, enough has been cleared in the city to show temples, palaces, monasteries, baths—

. . . monuments and piles stupendous,
Of which the very ruins are tremendous!

Suffice it here to say that now the trip to Anuradhapura is one that well repays the ordinary visitor, while to the archæologist, the naturalist, and other specialists it affords the greatest interest. There is room for improvement in the means of transit; but it is expected that henceforward, during the dry visiting season—January to May—a two-horse coach will be run all the way from the railway terminus at Matale for sixty-eight miles to Anuradhapura, where good accommodation at the roomy Government Rest-house can be had. Eighty miles south-east of Anuradhapura lie the ruins of the second ancient capital, Pollonnaruwa, which continued a place of royal residence for some 500 years after the former was abandoned. The Government Architect, Mr. J. G. Smither, since retired, did much under Governor Gregory to clear, measure, sketch, and photograph the ruins of both towns; while now a civil officer, Mr. H. C. P. Bell, with a force of labourers, is engaged in exploring and digging out Anuradhapura. But at the present rate of progress many long years must elapse before even all the more interesting portions of these buried cities can be uncovered; and it has been suggested that extraneous aid, after the precedent of the "Cyprus Exploration Fund," might be sought. Indeed, an enterprising American journalist has already been

* *Proceedings, Royal Colonial Institute*, vol. xv., p. 223. Paper on "Irrigation in Ceylon, Ancient and Modern." By James R. Mosse, M. Inst. C.E.

making inquiries as to whether a syndicate of his countrymen would be allowed to take part. To such a proposal Sir William Gregory, and, I believe, Sir Arthur Gordon are not favourable, although to a partial experiment on the site of Pollonaruwa alone less objection might be offered.

Round the Island.

Before leaving the subject of the routes and sights open to the visitor and traveller, I would refer to the voyage round the island by either of two well-found, comfortable steamers of the Ceylon Navigation Company, now regularly running. The circuit is made in less than a week, with time to land and see a little of several ports. Thus, leaving Colombo south-about, Galle, the old port of call for the mail steamers, with its beautiful but rather dangerous harbour, is first touched at; then Hambantota, with its salt pans and dry climate; Batticaloa, near to one of the greatest scenes of rice and coconut cultivation in the island, and its lagoon famous for "singing fish"; and next Trincomalee, the head-quarters of the naval commander-in-chief in the East Indies, and one of the great harbours of the world. In some respects it is more accessible, capacious, and even more beautiful than the far-famed Sydney harbour, than the Derwent basin at Hobart, or the Golden Horn leading to San Francisco—all of which I have had the privilege of comparing by personal inspection with Trincomalee—or, I believe, than the splendid harbour of Rio de Janeiro. Land-locked, and still as an inland lake, the broad expanse of waters, numerous beautiful islands, rocky headlands, together with woody acclivities and towering mountains in the background, combine to form at Trincomalee an Oriental Windermere. But, alas! there is neither population nor trade to make use of this harbour, which is on the wrong side of the island to be of service to the Colony; so that Trincomalee is of value mainly for the navy guarding the trade of the Bay of Bengal and for Imperial interests.

The next ports touched at are small ones on the northern peninsula of Jaffna, the scene of as dense a population, as interesting and varied cultivation in grain, vegetables, and fruit, and of as valuable educational and mission work, as is to be found in Ceylon. Later on the Paumben, or "snake" channel, is passed through, and the opportunity is afforded for visiting the great Hindoo temple at Ramisseran (868 feet long by 672 feet wide), which, though actually situated on Indian territory, is closely connected with Ceylon.

Pearl Fisheries.

Returning through the Gulf of Manaar, the steamer passes close to the pearl oyster banks off Aripo and Dutch Bay, where the pearl fisheries for which Ceylon has so long been famous have been held. One of the most successful was that of 1891, when a fishery of 44,400,000 oysters, one-third of which went as the share of the

boatmen-divers, yielded to the Government for the remainder no less a sum than 963,779 rupees. This fishery lasted 43 days, being controlled by the Government Agent of the province and a marine inspector, while a bare spot on the shore was for the time converted into a busy, populous town with many thousands of natives. These comprised dealers in pearls and their servants, who were attracted from all parts of India, divers and their relatives from as far off as the Persian Gulf, boutique keepers, etc., all of whom disappeared as if by magic so soon as the fishery was closed. The oysters caught each day are brought ashore, counted out into three heaps by the boatmen, two of which the Government Agent takes over and offers for sale by public auction at so much per 1,000. The buyers then superintend for themselves the washing of the oysters for pearls. The diving is done after a primitive fashion, and the longest time a diver has remained under water, so far as the records of the fisheries can be trusted, is 1 minute 49 seconds. Ceylon pearls were sent in eight varieties (according to shape and purity) by the King of Ceylon 300 years B.C. to the Emperor Asoka in Northern India, along with precious sapphires, rubies, and other gems.

Apart from the rich harvests of pearls in the years of the native kings, and during the Portuguese and Dutch occupation of the shores of Ceylon, within the British era the official receipts from pearl fisheries may be summarised as follows:—From 1796, when British rule commenced, to 1837, the total receipts were £946,803, against an expenditure of £51,752. From 1838 to 1854 there was no regular fishery; nor again in 1861-2; nor from 1864 to 1873; nor in 1875-6, 1878, 1882-3-5-6; and yet, in the remaining seventeen years, including 1891, no less than 345 million pearl oysters were fished, the Government share of which sold for £614,597. The highest net revenue in any one year since 1814 was the £86,000 realised last year. The average price then paid for the oysters was £3 5s. 3d. per thousand; while in 1880 it was as low as 15s. 4d., and in 1860 as high as £12 17s. 10d. per 1,000, according to the abundance of the fishery and the size of the pearls found each day. Unfortunately, I have to add that there is no prospect of another Ceylon pearl fishery for some years to come.

Ceylon as a Field for "Colonists" or Settlers.

Having now dwelt at some length on Ceylon's chief attractions to visitors, and incidentally alluded to a few of the exceptionally interesting native industries, I must next very briefly indicate what can fairly be said of the Colony as a field for "settlers," chiefly from the Mother Country, with, it may be, some from the European Continent, America, or Australasia. And first, I must at once aver that Ceylon, like the tropics generally, and India, is no place for the "working man" in the ordinary acceptance of the term. And yet no one need go there expecting to prosper—be he gently or lowly born—unless he is prepared for hard work. Indeed, the

anxieties and difficulties attending trade and enterprise connected with the East have of late years been so great, and so aggravated by the uncertainty of exchange, that business men in the chief towns of India and Ceylon have been heard to envy the typical British, Australian, or American working man, with his possibility of realising

Eight hours' work,
Eight hours' play,
Eight hours' sleep,
And 8s. a day!

But be that as it may, the safe counsel in regard to India, the tropics, and especially Ceylon, is that no one, unless a capitalist, should go out without a definite engagement, office, or at least the promise of employment in view. In other words, no one should go to the island "seeking." And yet in the early, rough pioneering days of planting, some fifty to fifty-five years ago, many young men came to the island on chance and got on well. But that was when there was plenty of work to be done in opening coffee plantations, an industry that continued fairly prosperous for some forty years, till smitten with a fungus pest, which can only be compared, in its destructive effects, to the phylloxera on the vine. Still, the island continues to be the best school available on the world's surface for tropical agriculturists. Planters trained in Ceylon in the management of coloured labour—and nowhere are native labourers treated with more consideration—are now to be found cultivating coffee, pepper, tobacco, etc., in the Malayan Peninsula, Sumatra, North Borneo, sugar in North Queensland, pioneering with coffee in the highlands of East Africa, improving the cacao and coffee culture of the West Indies, growing oranges in Florida, grapes and other fruit in California, or superintending plantations in Brazil; while two ex-Ceylon planters of experience have just returned from a trans-Andean expedition in Peru, where they explored and selected large areas of fine lands for tropical products, along the tributaries of the Amazon, for the Peruvian Corporation of London. To have earned the reputation of being a reliable experienced Ceylon planter is, therefore, pretty well a passport to respect, if not profitable employment, all round the tropical and sub-tropical world.

In the island itself, however, TEA has now taken the place of COFFEE, the area planted rising from 10 acres in 1867, or 1,000 acres in 1875, to over 250,000 acres at the present time, the annual exports of this staple simultaneously expanding from 1,000 lb. to 68,000,000 lb. last year. This is an unprecedented development in the history of any planting industry in the short period of fifteen years, while there is the probability of the Colony attaining to an export of 100,000,000 lb. in the course of the next few years. This should relieve the mother country of the necessity for going beyond her own dependencies—India and Ceylon—for this important article of universal consumption in

The cups that cheer, but not inebriate.

There is also the guarantee to consumers of Ceylon and Indian

teas that the utmost cleanliness and care are observed in their preparation, machinery being freely utilised; while teas of the finest aroma and most delicate character, with a minimum of tannin, can be supplied from the higher altitudes.

Unlike coffee, which could only be profitably grown on land between such limits as 1,500 and 4,500 to 5,000 feet of altitude, tea in Ceylon flourishes under suitable conditions of soil and rainfall, almost from the coast-line up to the plateaux and slopes of our highest hill ranges at 6,000 to 6,500 feet above sea-level. There is, therefore, far more scope for tea than there was for coffee culture, and the moist, hot climate is admirably adapted for the plant, while a leaf crop is not nearly so exhausting to the soil as one of fruit. But, on the other hand, the falling prices of recent years for tea generally, and the fear of over-production—of supply outrunning a demand profitable to the planter—forbids me to say that there is scope in Ceylon for more tea planters unless they be young men with capital, who, after learning their business, are prepared to take up existing properties, develop their economic cultivation and improve the factory "preparation," and so advance the enterprise. For let me say that there is still a fair margin of profit to be obtained from tea culture in the island under favourable conditions.*

Apart from tea, however, there is scope for the investment of capital, and room for settlers in Ceylon. In the low country the cultivation of the COCONUT, PALM is often profitable, though not generally a favourite with Europeans on account of the long period required to bring the tree into profitable bearing—some twelve to fifteen years. But there are favourable situations, notably on the north-west coast, where there are suitable crown lands available for purchase, and where in from ten to twelve years paying crops of nuts can be gathered from palms carefully planted and attended to. And this is an industry that is likely to have a prosperous future before it, in view not only of the value of the oil for many purposes—soap and candle making among the rest—but of the coir fibre from the husk, the latest use for the latter being to fill in the sides of our men-of-war behind the iron-plating. A new demand of late years has sprung up in confectionery for "desiccated coconut," of which not less than 1,500,000 lb. was exported from Ceylon last year. Of coconut oil the export has trebled in ten years, and of other products of the palm (coir, copra, nuts, etc.) the shipments have correspondingly advanced. The whole of the products of this palm exported from Ceylon aggregated about 18,000 shipping tons, worth £400,000 twelve years ago, in 1880, against about 60,000 shipping tons, worth about a million sterling last year.

There are other directions in which, as practical authorities in Ceylon maintain, large areas of fine land in the low country will yet be utilised for agricultural purposes by capitalists and planters when railway extension is carried out more freely towards the south, north-west, and north. RICE, CACAO, and TOBACCO may be culti-

* See paper on "The Tea Industry of Ceylon," by Mr. J. L. Shand, in the *Proceedings of the Royal Colonial Institute* for 1887-8, page 85.

vated, for instance, under some of the great tanks of late years made available for irrigation, and even plantations of valuable fruit and timber trees may yet be started by British colonists. But so long as attention is concentrated on some one staple, like coffee or tea, capable of profitable growth, within easy reach of the shipping port, and in the healthier, because more open, settled, and higher districts of the island, no one can blame planters for declining to go farther afield.

Planting and Settlement within the Mountain Zone.

As regards the higher regions of the Central Mountain Zone, which for over fifty years have been chiefly identified with the planting enterprise, it may be superfluous to say that no more attractive and, in large divisions, healthier country for settlement exists anywhere on the globe. From 3,000 feet upwards, and especially in the uplands of Dimbula, Dikoya, and Maskeliya, the climate is as nearly "perfect" as is possible, with an average temperature of from 58 to 68 degrees all the year round. Served by first-class railways and roads, and with resident medical officers, clergymen, and even certain educational advantages, it is no wonder, that planters have come to regard this quarter as a comparatively permanent residence; many of them, with their families, occupy comfortable bungalows, and only visit England when the children require to be brought home to complete their education. Ordinarily, of course, the planter in India and Ceylon is regarded as a bird of passage. Each young man coming out has thought of five, or at most ten, years as the period of his "exile"; but in Ceylon, as in the West Indies, in the healthier parts, prolonged if not permanent residence is likely to become the rule, and even now there are colonists who have been out twenty, thirty, aye, forty and fifty years, who declare they have enjoyed better health, and encountered fewer risks to life, than if they had remained to face the trying winters and treacherous springs of the mother country. I wish the English Life Assurance Offices would note this fact, and remove the unnecessary extra charge for residence in the island of Ceylon.

Forests and other Reserves of Crown Land.

I may be reminded, however, that all the land available in the hill regions I speak of has been taken up for planting, and indeed that too much of the hill forests has already been cleared. To remove the latter impression, it is only necessary to climb one of our higher mountains, like Adam's Peak or Pedrotallagalla, and look down on the vast extent of forest in all directions still remaining. Indeed, an order issued some years ago by the Secretary of State to sell no more Crown land above 5,000 feet will have to be relaxed unless progress is to be stopped, more especially now that a railway is shortly to be opened across the very highest district, where considerable reserves of such land may well be utilised, if

not for planting, at any rate for gardening and pastoral purposes. In place of selling, however, the Crown may well lease out portions of such lands for grazing purposes to rear cattle, sheep, and even horses; and I am aware that capitalists have already been offering to take up certain parts between Dimbula and Uva on lease, with the condition of leaving all large trees untouched, while clearing the undergrowth, and introducing new and better fodder grass and good farm stock for breeding and market purposes from the Australian Colonies.*

The Province of Uva.

But in speaking of the attraction to settlers in the upland healthful divisions of Ceylon, I would more especially refer to the Province of Uva, ere long to be connected by Governor Sir Arthur Gordon's railway with the capital and shipping port. Within the area of uncultivated land in this province there is room for very considerable development; we may even see COFFEE planted again with success in well-chosen gardens, and there is still an appreciable area under this product in Uva. CACAO (or the chocolate plant), which is also a tropical product with a good demand beyond the existing supply, can be grown, far more freely than it is as yet, in sheltered valleys here. Ceylon cacao plantations turn out the finest product of any "cocoa" received in the London market, and the export from the island has increased from 10 cwt. in 1878 to over 20,500 cwt. in 1891; while four- or five-fold this quantity would readily be taken off at profitable prices by the European consumers. Even CINCHONA bark can be grown profitably in the good soil and fine climate of Uva, although over the hill country generally this culture has had to be given up, since the price of quinine fell (mainly through large crops of bark from Ceylon) from 12s. an ounce in 1877-9 to 1s., and even 9d., per ounce last year in Mincing Lane! But there are still many other tropical products in good request—among them pepper, cardamoms, nutmegs, cocoa, rubber, etc., which, with the advantage of railway communication, can well be tried by settlers commanding a certain amount of capital. The feeding of CATTLE for market, already carried on in the district, should be greatly extended, while that of sheep is just about to be introduced;

* Altogether, in Ceylon, only 2½ million acres are cultivated out of 15½ millions of total extent; and, allowing for tanks, lakes, rivers, swamps, and useless areas, there must still be 8 million acres of good forest land, with a still larger area of low scrub and open pasturage land. The greater portion of the available Crown reserve land is, however, situated within the dry zone of the island; but, with the extension of irrigation facilities, this difficulty would be obviated or mitigated. The figures for the areas within the moist and dry zones in Ceylon may be given as follows:—

		Tons.	Cultivated.	* Uncultivated.
Within moist zone	acres	5,600,000	1,750,000	8,850,000
„ dry zone	„	10,200,000	1,000,000	9,200,000
		15,800,000	2,750,000	18,050,000

and there is ample encouragement to increase the culture of vegetables (potatoes especially) and fruits for the Colombo market. For, be it noted, that at present the vast proportion of the meat, grain, vegetables (potatoes especially) consumed in Colombo and other chief towns of the island is imported from India or Australia. The centre of the uplands of Uva may be found at Bandarawella (4,500 feet above sea-level), shortly to be the terminus of the railway now under construction, and here, by universal consent of Governor, medical man and visitor, is the finest climate in the island. An experienced Colonist, with no personal interest in the province, and who, along with the writer, in 1872 first propounded the scheme of railway extension across the hills into Uva—which was actually commenced by Sir Arthur Gordon in 1888—has written to me in view of this paper in the following terms of "Bandarawella" as a health resort, with its fine climate and other advantages :—

"There are few more pathetic sights to be seen on board our eastward-bound steamers than the consumptive patient *en route* for distant Australia. If in the earlier stages, *well and good*; but it is feared the family, or family doctor, too frequently only part with their patient when it becomes a last resource. The result being, as all travellers can truly tell, that too often the little remaining strength gives way under the prolonged discomforts which all invalids must endure even on board the P. & O.—the closing scene—that saddest of all sights—a burial at sea.

"Far be it from me, therefore, to recommend even the pure air of this cheerful, sunny spot in the highlands of Ceylon to those already in the final throes of pulmonary complaint; but what I feel sure all medical men who know this particular locality will support me in saying is, that young sufferers threatened with consumption might here find an effectual antidote, and a congenial temporary or permanent home at half the distance of Australia; a resort that may be reached in little more than a fortnight.

"A temperature which all the year round is moderate and equable, air which it is a positive luxury to breathe. No malaria lurking in swamps, no fever-laden breezes, no superabundant moisture, no chilling along-shore winds; a climate, in short, in which one soon learns to forget that he owns a frail body susceptible to climatic changes.

"And such a climate has Bandarawella, the terminus next year of the highland railway in Ceylon.

"It may be asked why this salubrious spot has been so little heard of hitherto; the answer being it was not sufficiently 'get-at-able.' Till now, when the important railway extension is about to be opened, the accommodation for visitors has been limited to one small Rest House or wayside Inn, but doubtless ample hotels will soon be ready to receive the casual visitors or temporary residents.

"The one drawback may be the extreme quietness of the place, and as idleness whether of mind or body is not conducive to health, it may here be proper to remark that for either lady or gentleman interesting and profitable employment need not be wanting. Young ladies will discover that educational establishments must soon be inaugurated for the many European children whose parents would so much rather have them near, than away in distant England, with all its climatic risks. A pleasant outdoor life will always be open to the agriculturally

disposed. Nearly all English vegetables, many of our best fruits, and many more we cannot lay claim to, in England, thrive to perfection in such a climate as this—to say nothing of dairy products, all of which would find a ready market in Colombo, now one of the chief calling ports in the world.

"Tea also grows well on these beautiful patenas, and although the Ceylon planter is apt to glut the market even with the best of products, there is no reason why Bandarawella should not share in the chances of this enterprise. In the valleys, cacao will prosper. There are, moreover, many other economic plants which might be grown here with equal facility and profit, such as the aloes and agaves for fibre, hemp, etc. A short residence would soon help one to decide upon a special hobby.

"Around this patena, or beautifully undulating grassy sward, extending to some 400 square miles, are the once famous coffee-growing districts of Udapussilava, Haputella, and Badulla, the last named long known as the 'Queen of Coffee districts'; and there, with its blue head rising to a height of 6,680 feet, still stands Namanacoolykande, on the shoulders of which once rested some of the finest coffee estates in the world. 'God made coffee for Uva, and Uva for coffee,' said good Dr. Thwaites, of Peradeniya; and the cannie Scotchman who cultivates here used to remark that so long as heather grew around Ben Nevis, the fragrant berry would thrive in his fields; but, alas! tea has, over a wide extent, replaced it."

Arabi, and those of his co-exiles who grumble at present at the moist climate on the coast, will readily find a delightful bracing change, and escape the wet season of Colombo, when the Uva railway is finished next year to Bandarawella. What the railway will mean in the development of the province, can only be understood by those who are acquainted with the difficulties encountered when an unusually heavy monsoon cuts up the cart-roads, breaks down bridges, or aggravates cattle murrain. Not thirty years ago a Glasgow merchant who voyaged out to Ceylon to inspect his fine coffee plantation in Uva got as far as Nuwara Eliya, forty miles from his property, and refused to go farther, so trying was the journey by road; and he actually returned home without seeing the place, contenting himself with an independent report! This was, of course, an extreme case, but in respect of access and development the railway will undoubtedly work a great change in this part of the island.

The Natives: Sinhalese, Tamils, etc.

It may be thought that in saying so much of British planters, settlers, and capitalists, in the further development of Ceylon, I am losing sight of the natives of the island—of the Sinhalese, Tamils, and other races to be found there. But this is not really the case; for it has been demonstrated that every acre of land planted with tea, coffee, cacao, etc., means the support of five additional natives (men, women, and children), and to the planting enterprise of Ceylon at this moment considerably over a million of natives of the island or of Southern India owe directly or indirectly their means of subsistence. Be it remembered that little more than forty years

ago—at the time when Sir Samuel Baker lived with “the rifle and hound” on the hills of Ceylon—these upland regions were all barren waste, or covered with heavy jungle. Not only has cultivation taken the place of jungle over immense tracts, which have been opened up by roads and railways, but prosperous villages and towns filled with well-to-do natives—traders, cartmen, artificers, etc., in a few hundreds or thousands, have sprung up in every district. Such places can be counted by the score, and even the sides of roads which were all bare within my recollection are now lined with native huts and cultivation. Notwithstanding that the total export and import trade of Ceylon has risen from a value of less than one million sterling in 1837—the year when the planting industry fairly began—to that of about £9,000,000 last year, and the general revenue from £372,030 to about £1,400,000 in this same period, it is true that many Colonists and British capitalists who invested in the interval found in their plantations the graves of many a British sovereign. But what they lost, the Sinhalese, Tamils, Moormen, and Malays never failed to reap. Sir Charles Bernard, the other evening in Toynbee Hall, told the working men of East London that the mass of Indian labourers were well off when they could earn two shillings a week, which was sufficient to keep a man, his wife, and two or three children *comfortably*; and that eight to ten millions of natives in India had a hard time of it, because they could not usually make above one shilling to one shilling and sixpence per week. The rural natives of Ceylon, like those of India, spend little or nothing to provide against cold, in clothing, boots or shoes, fire, house-rent or furniture, while their food is cheap; and in our island the labouring man, woman, or child can any day get ready and easy employment on tea plantations, the men earning from half-a-crown to three shillings and sixpence a week. Most of the work of tea plucking, culture, and preparation has to be done by two hundred thousand immigrants from Southern India, because the Sinhalese are on the whole too well off, too independent, or too lazy to go on the plantations.* However, the simple answer to any critic whom you may hear in England or elsewhere speak of the people of Ceylon—the Ceylonese of all races—as unprosperous, depressed, or ill-off is found in the one sufficient, undeniable fact that the population of the island has increased from less than 1,500,000 in 1837 to 3,008,239 in the census of last year, and out of this total not more than 6,000 are Europeans.

The Sinhalese and Tamils of Ceylon are a docile, intelligent, and advancing people. Their history, religion, and social customs may well afford an interesting study to the visitor, traveller, and settler. It must be remembered that the Sinhalese (now numbering 2,000,000) are an Aryan people like ourselves, and originally came from Northern India. Separated from their own race, and confined to this little island in Southern Asia, it is without parallel that so small a nation as the Sinhalese (there were not more than 750,000

* A considerable number of Sinhalese have, however, of recent years taken employment on tea plantations near their villages, the work of plucking the leaf being very easy, and the wages paid regularly.

when the British took possession of Ceylon) should have retained for more than 2,000 years their country, their language, and their religion, though constantly assailed by invaders from the opposite continent, one division of whom alone had a population to draw on of 10,000,000 to 12,000,000. Be it noted, however, that at one time the King or Emperor of Ceylon was a very important potentate. Even so late as A.D. 1150, or 740 years ago, Prakrama Bahu, the accomplished, mighty and "sole King of Lanka," besides securing peace and prosperity throughout the island, commanded a large army and powerful fleet, with which he successfully attacked enemies in Siam and Cambodia, as well as Southern India.

What the population was in his time, or in earlier eras of prosperity, we cannot now learn. I do not think the total population ever reached the 12,000,000 of some exaggerated estimates; 4,000,000 or 5,000,000 would seem to me the very outside of probability; for the Southern and South-western divisions of the island, where for many centuries now the population has chiefly been found, were in early times but sparsely occupied. Nevertheless, as regards the other portions, I am free to admit that the remains of tanks and watercourses, to promote irrigation over a large area in the Northern and Eastern divisions, show the population to have been very considerable, where now there are only units to the square mile. Whole districts in this part must have been depopulated either by disease or war; and the remnants, though forced to leave the plains by famine, pestilence or sword, or all combined, still had their hill fastnesses to guard against the foe. It has been well said that no one should look on the Kandyans—the highlanders of the Sinhalese, and generally muscular, bearded men—without veneration, when he remembers the warfare they so long waged that their land might be free from the yoke of the foreign oppressor. But certainly never has the "Roman peace" been so long or so thoroughly maintained in Ceylon as during the present century by the British Government, which has given, or is gradually giving, to the people all the social and many of the political privileges enjoyed by Englishmen at home.*

In contrast with the Kandyans, the Sinhalese of the low country are generally effeminate, and they have been described as the "women of the human race." When being trained as soldiers in early days, they could not be taught not to fire away their ramrods as the true missiles of destruction! Long subjected to semi-slavery by Kandyans, Portuguese, and Dutch alike, it was no wonder they

* No one has written more sympathetically of the Sinhalese than the venerated and accomplished Wesleyan missionary and Orientalist, Robert Spence Hardy, who worked for twenty-five years in Ceylon. In his "Jubilee Memorials," published in 1864, he said: "Nearly all the social and political privileges that Englishmen possess at home the Ceylonese enjoy in this island. In Britain, lives without number have been sacrificed on the scaffold and elsewhere by its patriots; tortures of the most appalling character have been endured, and battles many have been fought to secure to its people the freedom they now enjoy; and yet nearly every advantage connected with the birthright of the Briton, thus dearly purchased, is now possessed by natives of this and other colonies, though neither they nor their forefathers

became deceitful and unreliable—that the truth was not in them in the early part of this century. But a change for the better has taken place. Many of them are still complaisant to a degree; willing to accept a new religion, so long as they are not asked to give up their own; to oblige “master,” even to the length of swearing that black is white in the witness-box if told to do so; and “to please the womens” is often the excuse given by Sinhalese men-servants to their European employers for foolish or absurd observances. They all marry very young, but do not, as a rule, have large families, though a woman may here, as in India, be a grandmother at thirty, and, if she lives, a great-grandmother at forty-five. A Sinhalese woman who has never married is indeed a rare unit in the population. Though, for that matter, the saying is true as regards European ladies, that “women’s rights” are seldom if ever heard of eastward of Suez. In India, however, there are great reforms to be worked out in respect of women which scarcely affect their better-off sisters in Ceylon.

May I, in passing, add that there is no greater scope for the beneficial influence of educated, sympathetic English ladies in the present day than in India and Ceylon? The great need and the ample room there is for them as teachers, Zenana missionaries, nurses, and especially as physicians, and the way in which these duties are being slowly but surely taken up, has almost made one believe there is a providential arrangement—in Britain having so many single ladies free from incumbrances, and ready to meet the great call for their services from India and Ceylon, as from China and Africa.

As regards the Colonies, I have for the last twenty years been an advocate for brother and sister going out together, whether to Australia, America, India, or Ceylon; that is, where there is the promise of employment for the brother, or a little capital available. What will keep one will nearly keep two under such circumstances; and parents who deliberately plan a Colonial career for one or more of their sons could not do better than seek to train, if they have daughters, one or more to accompany their brothers. On the hills of India and Ceylon I know well that many lonely bungalows would have been brightened, and many valuable lives saved from premature illness and death, if this had been the rule in past years. And then, as planters and colonists laid the foundation of pecuniary independence, sisters would be exchanged (with their consent, of course!), and happy homes established without the risk too often

ever paid for them a fraction of their property, or endured for them a single privation, or lost one life. The natives who can live on the produce of the coconut tree, and need no more clothing than a rag to wrap round their loins, for decency rather than dress, would remain slaves as long as the race lasts, all classes exposed to the tyranny of every grade above them, without an effort to better their state, if men who have breathed the rime and braved the snowstorm did not break their fetters and teach them to be free. In all that regards character and comfort, in all things that raise man in the scale of being, in all that takes the rubble from within him and puts soul-ore in its place, the people of Ceylon are favoured with greater helps than have previously been known to any rice-eating nation in the world.”

attending the bringing out of brides to what may prove to them an unsuitable climate. For I need scarcely add that if the sisters did not care to settle down, or find the climate suitable, it is much easier for a sister than a wife to return and re-settle in England.

I think enough has been said, though very imperfectly, to show the deep interest which visitors, as well as settlers, may feel in the people of our island. Very much owing to the good work done by missionaries in past years, education, in proportion to population, is ten times farther advanced in Ceylon than in India; and though much remains to be done, steady, if not rapid, progress is being made. So much is this the case that Ceylonese young men are now finding scope for their energies as domestic servants, clerks, school-masters, road officers, and even doctors beyond their own shores—in India, Burmah (where there are two pure Sinhalese as assistant missionaries), in the Straits Settlements, and again in some parts of Australasia.

Let me here refer to the great and good work done by the public servants in Ceylon. In the Civil Service we have a body of cultured, honourable English gentlemen, standing as it were between the Colonists and the natives, whose one mission is to promote the good government and welfare of the people, and it is greatly owing to them that the Sinhalese and Tamils are now in so contented and advanced a position.

The Future of the Island.

As regards the future prosperity of the island, to sum up in a sentence or two, I may well adopt, with but few changes, the words of one of our latest and most disinterested visitors, Dr. Alan Walters. "The guarantee of prosperity is found in the central—even magnificent—geographical position of Ceylon, her ready command of cheap labour, her superb climate, and the amazing fecundity with which Nature, out of a lean rather than a fat soil, pours forth her fruits in answer to human toil. As an emporium of commerce, a coaling station, and a half-way house for the far East and South—China and Australia—the place of Ceylon on the map is unrivalled. To the traveller, apart from the Cyclopean antiquities, which will no doubt before long be made accessible to the madding crowd by a railway—conductors, coupons, and all the rest of it—there are abounding attractions in this beautiful island, be he artist or *ennuyé*, sportsman, naturalist, or scribe. The way there is, in these days, as easy as rolling off a log; it is only the way back that is hard—hard because as the low, palm-fringed shores sink beneath the horizon, and the Peak of Adam cloaks itself afar in a mantle of majestic mystery, you feel and know that yonder flashing point of light in your wake keeps watch by the gateway of an Eden where you fain would have lingered, and marks the portal of a summer isle where the brain-fogged workman may stand apart from the strain and stress of life, and the lotus eater (among the visitors with leisure) may take his fill."

No. II.

PRINCIPAL RECENT WORKS ON CEYLON OF INTEREST
TO THE VISITOR OR INTENDING SETTLER.

- "Murray's Handbook for India and Ceylon," 1891.
 "Fifty Years in Ceylon." An autobiography by the late Major Thomas Skinner, C.M.G. [W. H. Allen & Co., 1891.]
 "Two Happy Years in Ceylon." (Illustrated.) By Miss Gordon Cumming. [Blackwood, 1891.]
 "Palms and Pearls, or Scenes in Ceylon." (Illustrated.) By Alan Walters. [R. Bentley & Sons, 1892.]
 "About Ceylon and Borneo." (Illustrated.) By Walter J. Clutterbuck. [Longmans, 1891.]
 "Ceylon in 1893." (Illustrated.) By John Ferguson. Being a fourth edition of a Popular History and Guide to the Island. (In the press.) [John Haddon & Co., London.]
 "The Ceylon Handbook and Directory for 1891 and 1892." By A. M. & J. Ferguson. [John Haddon & Co., London.]
 "Guide to Colombo." By Geo. Skeen. [John Haddon & Co., London.]
 "Guide to Kandy and Nuwara Eliya." By S. M. Burrows. [John Haddon & Co., London.]
 "The Buried Cities of Ceylon." By S. M. Burrows. (John Haddon & Co., London.)
 "Manuals on Tea, Coconuts, Cacao, Rubber, their Cultivation, etc." Compiled by A. M. & J. Ferguson. [John Haddon & Co., London.]
 "The Tropical Agriculturist," for Planters, published monthly. [John Haddon & Co., London.]

[The above Works can be seen in the Library of the Royal
Colonial Institute.]

Discussion.

The Hon. Sir ARTHUR GORDON, G.C.M.G. : As the last returned Governor of Ceylon, I have been asked to undertake the agreeable duty of opening the discussion. I am glad to bear my testimony, humble as it is, to the skill with which Mr. Ferguson, in the course of a brief paper, has contrived, without making it a mere collection of statistics, to deal with a variety of topics of great and permanent interest. But when I am told to open a discussion, I confess I find myself somewhat at a loss, because to discuss a question one must take up some position that has not been taken up before, more or less demur to what has been advanced, or ask for an explanation of the meaning of what has been said. Now, I cannot say that I am disposed to dispute any of the propositions that have been brought forward, or that I do not understand the terms in which they have been stated. As those among us who are familiar with Ceylon do not require to be told, Mr. Ferguson and I have had our differences in times past, and I daresay if I were now in Ceylon

we should have them again, but they were differences which have never prevented our mutual respect for each other, or, I believe, our mutual feeling that each was deeply concerned in the welfare of the colony. Now, I listened to the paper—knowing I was to be asked to discuss it—in a somewhat critical spirit, to see where I could find a peg on which to hang a dissent, and I said to myself as it went on: “Now, can I raise discussion upon that point? No. Will that do? No.” But I did find one proposition in what he read against which, I confess, I do feel inclined to enter a protest—to demur to the suggestion put forward, and that is with regard to the manner in which the still existing forests of Ceylon should be dealt with. I am bold to say I do not concur with Mr. Ferguson in the impression which he says is produced by a view from the top of the Pedrotallagalla mountains over the planting district of Ceylon. He says that from the top of one of these mountains you will see what a great extent of forest there is still left and to spare. I can only say that when I last ascended to the summit the impression left on my mind was—how little was the bit of wood now left there, and extensive and alarming the denudation of the country. It shows how the same view may differently impress different people, but I must say, bearing in mind the views of my eminent predecessors—Sir Hercules Robinson and Sir William Gregory—I hold it to be of the utmost importance to the welfare of the island that that reserve of forest above a height of 5,000 feet should not rashly be tampered with. I say that with emphasis, because I have had opportunities in other parts of the world of seeing what the effect of such denudation is. On a small scale I have seen it in Mauritius; on a large scale I have seen it in South America, and when once that reserve of wood on the summit of the island has been got rid of you will find it uncommonly difficult, if not impossible to replace, and you will find the results exceedingly unpleasant. I therefore hope the Government of Ceylon will be very careful before relaxing its rules with regard to the felling of timber above 5,000 feet. I have no other criticism to make on the paper, and I can only repeat my expression of admiration of the manner in which Mr. Ferguson has performed his task. But if at all times I am disinclined to discussion, if at all times I feel reluctance to speak, I am free to confess that this evening I feel that reluctance in an unusual degree, for I cannot think of Ceylon to-night without a feeling of profound sadness. Those of you—and I suppose there are many such in this room—who come from Ceylon, or who are nearly connected with Ceylon, will know what I mean, for I am sure the dominant thought in their minds is that which prevails in my own—a feeling of regret and sadness for the loss which the Colony has just sustained in the death of one of its best Governors, one of its warmest and most constant friends, Sir William Gregory. This is not the time nor am I the man to discuss Sir William Gregory’s conduct as Governor of Ceylon. Our views with regard to that Colony were almost identical, and were I to praise the policy he adopted or the modes of government he pursued, I should seem, more or less indirectly,

to praise my own. But of the man I might for a few moments speak. Sir William Gregory, like many of the best men of the country to which he belonged, possessed that ready faculty of saying the right word, and doing the right thing, at the right time, in a way which gained, without his seeking it, a universal popularity, and a popularity, let me say, of the best sort, for it was a popularity not founded on elaborate efforts to please, but on a real kindness of nature which came spontaneously from the heart. I have plenty of evidence of it, and I know what it was that endeared him to those who worked under him. On one of his last visits to Ceylon—for he came to Ceylon three times while I was there and revisited the scenes of his labours—he visited the public works that were going on in a lonely and pestilential forest, and there he found an engineer officer of the Government suffering from fever brought on by exposure in those works. He was told the only way of resisting the fever in such localities was to live well and drink good wine, —not easily attainable by an engineer officer in such a place. When Sir William went back to England he sent out to him several cases of the best champagne, though he did not know the man before. These were the sort of acts which endeared Sir William, and justly so, to those he worked with. In a letter which I had from Sir William after he was taken ill, he said that if he did not recover he begged me to look after some little acts of kindness, of a comparatively trivial nature, which he meditated on behalf of a young Sinhalese now in England, in whom he took an interest. Those who are connected with Ceylon do not require to be told that there are many homes in Ceylon, native and English, which are saddened to-day by the telegram which has just gone out there.

Mr. R. G. WEBSTER, M.P.: As a representative in the British House of Commons, I have the honour of addressing a large number of ladies and gentlemen who belong to Greater Britain, and I do so with the more modesty on this occasion from the fact that I have never been a Colonist in Ceylon. It has, however, been my lot on two occasions to visit that interesting and important Colony—once in 1870, when I was, comparatively speaking, a young man, and again in 1880. On the latter occasion the Colony was to some extent in a state of depression. The coffee plantations were in a very bad way and other products had not come to the front, but I am glad to learn from the valuable and interesting address we have heard this evening that those times have passed, and that you have found an important commodity in tea, in which you compete with the plantations of China, and certainly with those of Assam and Northern India. I have listened with great attention to this interesting lecture. I only hope that all the Colonies are in your happy position from the fact that you have no grievances, that you have no necessity to come before the Imperial Parliament on the occasions when we discuss estimates, and from the fact that you have been so fortunate in your Governors and Ministers. You have an admirable climate. You have also a great history. I must congratulate all present on having heard so admirable a lecture on the resources of the Colony.

Mr. J. R. MOSSE (formerly Director of Public Works, Ceylon) : I have heard Mr. Ferguson's valuable paper with great interest, and there was very little he said with which I do not agree. As Mr. Ferguson has referred to Public Works and Railways, and as for some eleven years I happened to be mixed up with both those Departments, perhaps I may be allowed to say a few words on the subject, for, although I have now retired, engineering is still as dear to me as ever. It was owing to the enlightened policy of Sir Henry Ward, about 1855, that the system of devoting to public works almost every farthing of surplus revenue was commenced. These works comprise new roads, new bridges, new buildings, and irrigation works, and on them has since been spent between £400,000 and £500,000 per annum, independent of the railways and harbour works, and of the Colombo waterworks. Of course, the new roads and bridle paths have greatly increased facilities for transport, and the irrigation works have been of enormous benefit. In a paper I had the honour to read before this Institute in 1884, I pointed out that the Government of Ceylon could afford to spend fifty rupees per acre on irrigation works, and that they reaped not only a direct profit of 5 per cent. on the expenditure, but also a far more valuable indirect profit; for crops that were formerly uncertain were made certain, famines were prevented, the health of the district was greatly improved, and there was a vast amelioration in the general condition of the country. The railways were made at different times: the first, constructed by Sir Guildford Molesworth, was from Colombo to Kandy, on which the Kaduganuvva Incline is as fine a piece of engineering as can well be seen. That line has for many years paid 8, 10, and 12 per cent., but that is only the direct commercial benefit, and I hold that the indirect benefits to the community are what really ought to be considered, especially on a railway owned by a Government. That line was, in 1885, extended to Nanu-oya. It rises at this point to some 5,300 feet, and was really a very difficult piece of work. Other lines have since been made, but the surprising fact is this—that while nearly £4,000,000 (taking the rupee at 2s.) have been spent on railways, no less than £2,000,000 have been paid off, so that these railways, which cost originally 39,500,000 rupees, now stand in the books of Government at only 17½ million rupees—in other words the Colony has paid off 55 per cent. of the original cost, and I doubt if any other instance of this sort can be found. The result is the Government are now reaping fully 12 per cent. on the outstanding capital, or 5½ per cent. on the original capital. As you have heard to-night, the railway is to be extended over a summit of 6,200 feet above the sea to Uva, which possesses one of the finest climates in the world. In conclusion, I would only say, with reference to the late Sir John Coode, that in him we have lost a very valuable friend of the Royal Colonial Institute, and a man of most sterling character. His works at Colombo are second to none of the kind in the world, and that breakwater will be a monument to him for generations to come.

Sir SAMUEL GRENIER (Attorney-General, Ceylon): Mr. Ferguson

has, I think, read to you just such a paper as one could desire in the interests of Ceylon, and has stated the case so clearly and concisely that no words from me can add to its effect. I desire to endorse the sentiments which Sir Arthur Gordon has expressed in reference to one of the greatest and best Governors Ceylon ever had—Sir William Gregory. That reference to him was only a just tribute of praise. Sir William Gregory governed Ceylon not merely for the Imperial Government, but for the good of the people of the Colony, and that is saying a great deal for one who, without any previous Colonial experience, but chiefly after a Parliamentary career, was sent to take up the administration of that distant land. It was my privilege to see him only a few weeks before he died, and almost his last words to me were, "Oh, if I could only have a week at Mount Lavinia"—one of our watering-places—"I should soon be well again." He has passed away, but his memory will live, and if I might take upon myself the responsibility of speaking for the people of the Colony, I would say that he will be remembered with gratitude by all classes of the community—Europeans and natives alike—and his name will be cherished as that of one of the most popular and able and honoured rulers that Ceylon ever had.

Sir ALFRED DENT, K.C.M.G. : There is one matter that has not been very much dealt with this evening, either in the paper or in the discussion—I refer to the planting industry. We all in this room know what Ceylon tea is, but few understand what untiring energy it has required to convert the decaying coffee plantations into the successful tea-gardens which now everywhere meet the view of the visitor travelling up country. There are several planters here this evening, and I regret that none of them seem willing to give us the benefit of their experience in so interesting a life. I can, however, testify to the kindly welcome and hospitality which the visitor receives at every bungalow where he is fortunate enough to gain an introduction. The working of the estate is shown in every detail, and one can but admire the perfect organisation of a well-conducted establishment, and, above all, the skilful manner in which the planter handles his coolies. He lives in the hills with hundreds of these coolies in his employ—very often four miles or more from his nearest neighbour—and the good understanding which prevails shows that the Britisher excels here as elsewhere in the art of getting on with his native labour. I can quite confirm what has been said as to the loveliness of Ceylon and its harbours—Point de Galle and Colombo—and think one of the grandest sights in the world is to see the monsoon breaking over the Colombo breakwater. If some enterprising Colonist would send home some photographs showing these mountains of spray flying over the masts of the many steamers and vessels snugly anchored within a few hundred feet of these great rollers, I am sure he would find a ready sale for them.

The CHAIRMAN : I quite agree with Sir Alfred Dent that we should be much obliged to any planter or Colonist who would give us the benefit of a few observations. Meanwhile, I call on Sir John Bray as a recent visitor to Ceylon.

Sir JOHN BRAY, K.C.M.G. (Agent-General for South Australia) : I am not like some previous speakers, who have had great experience of Ceylon, for my own knowledge of the island was gained on a visit I paid last month on my way from Australia, when, owing to the rapid passage of the vessel, I had the pleasure of spending a couple of days there ; and six or seven years ago I paid a somewhat similar visit. We had a trip over the Government railway to Kandy, and every one of us was struck with the exceeding beauty of the hills and of the scenery generally, and also with the apparent productiveness of the place. It strikes one coming from Australia or from England as something like a new world, and for any one who wishes for a complete change from ordinary sights, nothing could be more attractive. I am very glad to hear of the successful administration of the island, which I trust may continue to have the good Governors such a place deserves. I represent one of the Australian Colonies, in which I was born, and I can only say I am exceedingly glad to be present to-night, and to have heard this interesting paper, and also to renew the acquaintance I had the honour of making some years ago in Australia with our Chairman.

The CHAIRMAN : I have now great pleasure in moving a cordial vote of thanks to the lecturer. On all occasions we are very much indebted to any gentleman who takes the trouble to prepare a paper, and especially when that paper is one of such ability and so comprehensive as that to which we have listened to-night. It is, I think, a matter of public benefit and patriotism that any one who is so able to address a public audience in Britain on such a subject should give us the advantage of his experience, because such information and the discussions which follow are calculated to quicken and intensify that interest which is happily growing day by day in all that relates to Greater Britain. For these reasons I propose a hearty vote of thanks to Mr. John Ferguson for his paper.

The motion was adopted with acclamation.

Mr. JOHN FERGUSON : It is very gratifying to me to be the recipient of such a cordial vote of thanks. I feel I must undeceive you and our friend, Mr. Webster, M.P., as to our having no little grievances in the island. I understood that this platform was not the place on which to introduce controverted questions from our little world of politics, but I am afraid that before very long we may have to trouble the House of Commons with one or more of our Ceylon grievances, and let us hope we may get a good deliverance from them without disturbing the Imperial mind too much. In reference to what our late Governor, Sir Arthur Gordon, has said, I am glad to find there was only one point that he was inclined to controvert or oppose, and on that I may remark that I did a little injustice by omitting certain passages which you will find in the printed paper. In regard to forest land over 5,000 feet, you will find I quite agree with him in thinking that the Crown should not permit the reckless cutting down and planting of such forests with tea or other products, but you will find from the paper that I point

out that there are considerable reserves of such land which may well be utilised, if not for planting, at any rate for gardening and pastoral purposes. In fact, applications have been received to effect settlements by cutting away the undergrowth while leaving the large trees, and what I maintain is, that unless something of the sort is done, this part of the country will bring no traffic to the new railway. As regards the future, I may mention that when Sir Hercules Robinson was leaving Ceylon for New South Wales some twenty-five years ago, I had a farewell interview with him. We had just begun to agitate for an extension of the railway to Uva from Nawalapitiya, and I asked him to say, as a private individual, whether we had not a case for that extension. His reply was that he saw no prospect of a justification for such a work. If Sir Hercules Robinson were to return now, he would see how mistaken he was in that cry of "Nawalapitiya and finality," and so it may be in regard to the development of Ceylon in other directions. In conclusion, I will only add that those present, both ladies and gentlemen, can best show their practical interest in Ceylon, and acknowledgment of this lecture, by not only drinking Ceylon tea themselves, but by advocating its use by others.

The EARL OF GLASGOW, G.C.M.G. (Governor of New Zealand) : I am sure you will agree with me that one of the most important points at a meeting such as this is to have a competent Chairman, and I think you will also admit that we have had such a Chairman in the Earl of Aberdeen. I need not now descant on his social qualities or on the numberless ways in which he makes himself useful to his fellow-countrymen, but I simply ask you to accord him a cordial vote of thanks for his services in the chair this evening.

Mr. J. FERGUSON : I should like in one word to second this vote, and to add that there is a peculiar fitness in Lord Aberdeen filling the chair on the occasion of a paper being read on "Ceylon." Not so far back, two-thirds of our planters were Scotchmen, and, again, two-thirds of these hailed from the north-eastern counties of which Aberdeen is the capital ; and I am sure a better Chairman in every respect we could not have here.

The CHAIRMAN : I am very grateful to you for this kindness. Mr. Ferguson has suggested what is perhaps the reason for my being asked to preside this evening ; namely, that I come from a county which has furnished so many energetic and successful settlers in Ceylon. If there are any Aberdonians in this room, they will agree with me that that north-east corner of Scotland is a very remarkable place. You won't, perhaps, go the length of the Aberdeenshire boy who, when asked at school what was the capital of England, replied "Scotland," and when asked what was the capital of Scotland said "Aberdeen." Now you all know there is one quality which Scotchmen possess in an eminent degree, and that is modesty. Therefore I am not prepared to say much in reply to this toast—I beg pardon—vote of thanks. You see modest people are apt to get confused. You may have read the story told in that attractive book, "Twenty-five Years of St. Andrews." A

worthy squire was present at an ordination dinner. Being called upon to speak, he said that, on such an occasion, when so many distinguished members of the Church and so many learned professors were present, his doing so was like casting pearls before swine. Ladies and gentlemen, I am very much obliged to you.

The proceedings then terminated.

APPENDIX II.

TROPICAL PRODUCTS: THEIR CULTIVATION IN DIFFERENT COUNTRIES.

CEYLON AS A FIELD FOR PLANTERS.

BEFORE a general meeting of the members of the London Chamber of Commerce, held on the July 25th, 1892, Sir Arthur N. Birch (late Lieut.-Governor of Ceylon) in the chair, Mr. J. Ferguson (Hon. Corresponding Secretary of the Royal Colonial Institute and of the Imperial Institute) delivered an address on the "Production and Consumption of Certain Tropical Products with reference to their cultivation in Ceylon, namely Tea, Coffee, Cacao or Cocoa, Coco-Palm Nuts, Fibre and Oils, Cinchona Bark, Cinnamon, Cardamoms, Rubber, Pepper, &c."

Mr. Arthur Thompson (Messrs. W. H. & J. Thompson) in moving Sir Arthur Birch to the Chair, made complimentary reference to the Lecturer and his good work for Ceylon; as did afterwards the CHAIRMAN in opening the meeting, in highly eulogistic terms.

Mr. Ferguson said: Sir Arthur Birch and Gentlemen, I fear that you will have been anticipating, from the rather discursive title of my paper, that it is to cover a very large area, and to lead you into the consideration of a mass of varied statistics. But I will spare you the latter as much as possible this afternoon, and will endeavour, in the treatment of my subject, to be concise enough to suit even a city audience in business hours.

My object is to refer (1) to Ceylon as a field and school for the tropical agriculturists; (2) to some of the staple products cultivated in that island, and exported thence; and (3) to the present position and prospects of such staples with reference to the world's production and consumption thereof.

Ceylon is well-known as one of the most beautiful and attractive of British dependencies. It is a paradise to the botanist, but of scarcely less importance to the naturalist generally; and it is historically, socially, and scientifically interesting. But it is from the planting and commercial point of view that we are now to regard it, and I would begin by saying that the island is one-sixth less than Ireland in area, and has to-day a population of about 3,050,000. For situation, while poetically described as a pearl-drop on the brow of India, it may be said to occupy a central position in Southern Asia, its capital, Colombo, being now the greatest calling and coaling port for the mail and commercial steamers in the Eastern seas. At this time, when the London press is full of the records of disasters from hurricanes, volcanic eruptions, and big fires, the position and circumstances of Ceylon are of special import to the British capitalist, the merchant, and planter; for we can speak of an almost complete immunity from cyclones, such as occasionally ravage

the shores of the Bay of Bengal to our north ; from the earthquakes and eruptions which distinguish Java and the Archipelago to our east ; and from the hurricanes bred in the Gulf of Mozambique, which periodically devastate the sugar island of Mauritius, and the Zanzibar coast in the west. The wind and rainstorms which usher in the monsoons occasionally inflict some damage on our crops, but there is no comparison in this respect between the risks attaching to cultivation in our island, and those experienced in Mauritius and the Eastern Archipelago.

With such advantages, and with ready and comparatively cheap means of transport to the European markets, with a good system of roads and railways in the island, and with a favourable climate, it might be supposed that Ceylon should be the paradise of the cultivator and exporter. But here, as elsewhere, it has been demonstrated very clearly, in spite of occasional exceptions, that only in the sweat of his brow is the planter or business man to earn his livelihood, or, at any rate, his competency. Although covered with vegetation, which is always green and luxuriant, Ceylon, has, on the whole, but indifferent soil—only here and there are there rich alluvial sections, or valleys, or plateaux, with fertile deposits. The great compensation is in a forcing climate—the constant alternation of sunshine and rain over at least the populous south-western division of the island ; so that, as the exaggerated illustration runs, if you stick an iron crowbar in a macadamised road in Colombo, it must needs begin to sprout. Certainly no such thing as a dry fence can exist with us, since every post and stick touching the earth is soon ready to send forth shoots. Our tropical rains, too, are peculiarly rich in ammonia—a very important matter where leaf production is concerned, and one to which I shall have to refer by-and-by, and there is scarcely any month of the year without some rain, though the temperature is high enough to minimise its effects, save in respect of vegetation.

The next great advantage for the planter in Ceylon is a good supply of free, cheap labour. The immigrant Tamil coolies from Southern India, under proper management, are among the most docile and useful of field or factory workers. Many years ago, in the height of coffee prosperity, when scarcity of labour was often the cry, it used to be said that the planting enterprise in Ceylon depended entirely on the Tamil coolie, and that a number of abundant grain harvests in Southern India, superseding the necessity for his leaving home, would bring ruin to the Ceylon planter, who might as well shut his store door and return home. Since then there has sprung up a considerable supply of indigenous, or resident Tamil labour in the island, while this is, in certain districts, supplemented by Sinhalese men, women, and children, who have taken kindly to the light work of tea-leaf plucking. Still our plantations continue to be very largely dependent on immigrant coolies, and, with the competition offered to us in Southern India, by the Straits Settlements and Burmah, it is quite necessary that everything possible should be done to encourage and maintain an ample flow of such immigrants to Ceylon.

We are accustomed to say that Ceylon is the best field and school in the world for the training of the tropical planter. This saying is based, not simply on the interested opinion of our very good selves, but on the observation of scientific gentlemen connected with Kew, or other botanical, agricultural, and chemical institutions, who have visited us ; of travellers who have been able to compare plantation work in different colonies ; and on the evidences of intelligence, skill, and experience in the development of our local enterprise. A young man properly graduating as a planter in Ceylon is bound to acquire much practical

knowledge respecting the best treatment of the plant and soil on which he is engaged ; in regard to the proper management of coloured labour —(and nowhere are labourers treated more kindly)—including the learning to speak the coolies' language colloquially ; he is expected to understand not only the mysteries of seed nurseries, of planting, draining and road-making ; but to be able to design and superintend buildings, whether in wattle and daub for coolie lines, or in brick and stone for his own bungalow and factory, and the more he is, or becomes, of a practical engineer, land surveyor, and even physician for his coolies, the better. To know something of chemistry and geology, of soil constituents and manurial applications, is no drawback, but the reverse, to such colonists. Many of our planters, after they have learned the nature of their work, are anxious to experiment—backed by the expert in Mincing Lane, the machinist, or the analytical chemist, or by all three, in the hope of turning out a better, or better prepared product, of securing a more abundant crop, without injury to the plants, or waste of soil ; or of economising in their field or factory work, in freight or other expenses, by some mechanical contrivance or improvement. For such improvements there is still plenty of scope in connection with nearly every department of tropical agriculture. Supported by the local press—(and Ceylon produces an organ, the monthly *Tropical Agriculturist*, unique among English periodicals, and which finds its way to the Agricultural Department in Washington, whilst it is highly valued all over India ; in Australia, East and South Africa, Central and South America, in fact, all round the tropics)—there is a constant interchange of ideas, experiments, and criticism in our island. Therefore it is no wonder that, to have earned the reputation of being a reliable, experienced planter in Ceylon should pretty well be a passport to respect, if not profitable employment, in any part of the tropical world. In this region the Ceylon trained planter, like the Scotchman, who is never so much at home as when he is abroad, promises to become ubiquitous. The first great exodus took place after the collapse of our coffee, when some three hundred planters gradually left Ceylon, and began cultivation in the jungles of Perak and Johore, of the Straits Settlements, in North Borneo or "New Ceylon," in the tobacco fields of Deli, Sumatra ; in the sugar-growing regions of Northern Queensland ; while I found some of them in 1884 in the vineyards and fruit orchards of California, and orange-growing in Florida. Others went to try coffee on the Blue Mountains of Jamaica, to revive cacao planting in Grenada, to open coffee and cinchona plantations for the President of Guatemala, and to supervise coffee investments in Brazil. Farther, two ex-Ceylon planters of experience have lately returned from a Trans-Andean Expedition in Peru, where they explored and selected large areas of fine land for tropical products, these areas lying along the tributaries of the Amazon, and being taken up for the Peruvian Corporation of London ; while another gentleman, Mr. J. L. Shand, closely connected with Ceylon, has just been reporting on cultivation in Johore and North Borneo.

New Guinea and Madagascar have been explored by Ceylon planters, and among the pioneers in the hill-country of East, or rather Central Africa, at this moment are men trained in our island.

An illustration of what is thought of such training in other lands came under my notice the other day. One of our planters was travelling through a West Indian island. The director of the local Botanic Gardens, greatly interested in his cacao field, and seeking the opinion of his Ceylon visitor on the different kinds he had growing

together, was reminded by the latter of one result in the probability of his different plants *hybridising*. "Ah!" said the director, "that word alone teaches me a lesson as to your training: such a suggestion I have never heard from any West Indian planter."

But it must not be supposed that there are no black sheep, nor ill-trained men, nor those who decline hard work, among Ceylon planters. Indeed, the joke is that a few under the last category, who have come to the country with capital, having, by sheer good luck, so invested that they have been able in a short time to return to the old country with scarcely a day's hard work to their credit, but with the prospect of a fair income, have gone about saying that "the old fogies" who toil and slave out there for long years "have no brains, sir." In other cases, no doubt, it has been a question of "capital" *versus* "experience," and sometimes these commodities are somehow, after a time, rightly or wrongly, exchanged! Then there is what we call the "tropical swing"—the ebb and flow of prosperity—the alternation of prosperity and depression, not unknown, I take it, in the City of London, as in the plantation colonies of Britain.

In Ceylon we have freely demonstrated the great law of the "survival of the fittest," for there are some products which, though experimented with, have never proved a success. Among these is *Cane Sugar*, for which, even if we had the needful expanses of rich alluvial soil, our persistently moist climate in south-west Ceylon—the populous occupied side—is not suited; although fifty years ago a great deal of money was spent before this was conclusively demonstrated. Again, more recent experiments and investments have shown that Ceylon can never be much of a *tobacco*-growing country, and yet in certain districts the natives do grow a great deal of tobacco for themselves, and some, at least, sent home by Europeans fetched good prices. In growing *cotton*, too, we have not had much success. But, on the other hand, we profess to know, from the best of practical experience and success, as much about *spice*-yielding trees and shrubs and their bark and seeds; about palms, their nuts, fibres and oils; about cinchona, coffee, cacao and tea, as all the rest of the world put together: and we aim at turning out the very best of products under these heads.

Let me run over the staple products thus indicated, with reference more especially to the purpose of this paper; and first I will take the spice CINNAMON, which has longest been identified with Ceylon and, indeed, is the only one of our principal products of which we can speak as indigenous. For, we have not only the cinnamon shrub growing in Colombo and in the cultivated plantations of the Negombo and Morotuwa districts; but we have the same cinnamon as one of our most striking forest trees in the interior. There it blazes out at certain seasons in every shade of pink, crimson and scarlet. Nowhere else does the cultivated cinnamon grow so well or produce bark of so fine a quality as on the coast of Ceylon. The island has been famed for this spice since the dawn of historical records. Merchants in Rome traded in cinnamon in the time of Augustus, contenting themselves with nothing less than 100 per cent. profit, and this the price then prevailing for the rare precious bark, of £8 sterling per lb., amply covered, even with all the risks attending the annual trading expedition in its transit across Egypt and down the Red Sea to the Far East. The command of its cinnamon was the main attraction in Ceylon to the Portuguese and Dutch, and indeed also to the British in the early days. Because of its spice, Ceylon was considered, in the 16th and 17th centuries, the most valuable gem in the crown of Portugal; and yet at that time, and up to

1767, there was no systematic cultivation of cinnamon, while until fifty years ago the trade was a Government monopoly.

With the abolition of the monopoly and heavy export duties, the cultivation and export rapidly increased; but alas, as with so many other products, the prices fell in correspondence from 8*s.* to 5*s.*, and 2*s.* 6*d.*, and now to a rate (1*s.* 2*d.* to 1*s.* 6*d.*) which is said barely to cover the cost of cultivation and careful preparation. This is partly owing to the fault of Ceylon growers themselves, in starting and persisting in a trade in "*chips*," which affects the demand and price for the properly prepared *baled* spice; but it is due still more to the competition of inferior cinnamon from Java and other parts of the Eastern Archipelago, and to large quantities of cassia from China. We have to consider, too, that cinnamon is scarcely a necessary food product. Indeed its consumption largely depends on the demand for incense in Southern Europe and other Roman Catholic countries, although a certain quantity is worked up in chocolate—notably in Spain. So far as I can learn, the world's production of the true, cultivated cinnamon does not exceed three million pounds, Java and the Malabar coast supplementing the Ceylon supply; but of cassia, double or even treble this quantity is collected and shipped from China, Siam, Sumatra, and other parts of the Far East.

Ceylon can produce finer cinnamon than any other land, and if only the price afforded a fair profit to the planter, our permanent supply could easily be increased 50 or even 100 per cent.; but of late years a good deal of cinnamon cultivation has had to be abandoned, the land being used for coconut and other palms and fruit trees.

I will next talk of PEPPER, a spice closely allied with cinnamon in the early days in the records of the Ceylon trade. "3000 lbs. weight of Cinnamon and Pepper" was the gift sent by the King of Kandy to the King of Holland, when invoking his aid against the Portuguese in 1602. The Dutch paid special attention to the pepper trade, and Ceylon pepper was by them very highly prized, their Ceylon Governor in 1740 considering it a more important article than coffee, because he did not fear an over-supply. In this respect I believed until lately he was a true prophet; for I had considered that pepper was one of the few tropical products for which the demand was in advance of the supply, but I learn that of late supplies have come in from the Eastern Archipelago in such large quantities, that pepper is likely to fall to 2*d.* a lb. From Ceylon, the Dutch imported nearly half a million pounds of pepper 150 years ago, but, strange to say, ever since the export has fallen off, until when the British arrived, at the beginning of this century, it did not exceed 100,000 lb., and now, in spite of attempts to revive the cultivation on the part of European planters, and of encouragement to the natives through the Botanical Gardens, the export from Ceylon, apart from local consumption, does not exceed a few hundred pounds. From India, the export in a single year has been as much as 12,000,000 lb., Java and Sumatra sending three times that quantity to Europe; while the Malayan Peninsula, Siam, Borneo, and other parts of the Eastern Archipelago contribute to make up the rest of the world's production, which is estimated at seventy million pounds.

CARDAMOMS, on the other hand, are a spice which, freely cultivated and exported from Ceylon in the time of the Portuguese (between three and four hundred years ago), and also in that of the Dutch, afterwards, like pepper, fell off to a few hundreds or thousands of pounds; indeed, the Ceylonese had, some thirty years ago, begun to import some from India for local consumption. This, however, was one of the products which the coffee planter (when his staple failed) began to cultivate with profit,

and thus the export from Ceylon has risen from 9000 lb. in 1873-4 to 400,000 lb.; and Indian planters have been complaining that the rush in Ceylon is likely to spoil the market, if it has not already done so. Altogether there are about 5000 acres cultivated with this spice on Ceylon plantations, apart from small plots in native gardens, the produce of which is chiefly consumed locally; and although I do not think there is much room, even if there were encouragement, for extension, yet I see no reason why Ceylon should not keep up a steady export of from 400,000 to 500,000 lbs. of cardamoms. Travancore, Coorg, and Mysore supply the greater part of the Indian production of cardamoms, a market for which is found in the Presidency towns as well as in Europe. India, of late years, has not exported more than 400,000 lb. of cardamoms; latterly, indeed, only half that figure has been reached, although the Customs accounts show for all spices (chiefly ginger and pepper, with cardamoms) a total export of nearly 25,000,000 lb.

The price of cardamoms in the London market has certainly fallen steadily in correspondence with increased exports from Ceylon, so that while the highest quotation was 9s. 1d. in 1880-1 when we shipped 16,069 lb., it fell to 5s. 2d. five years afterwards, when our export was 154,405 lb., and now that we send you more than 400,000 lb. it is only a little over 2s. So that here is another product like "Cinnamon," the cultivation of which if suggested in new lands to you gentlemen—capitalists of the city of London—should be met with *Punch's* well-known negative, "*Don't*"; or at any rate with only very cautious encouragement.

Still more has that lesson been impressed by the logic of facts in reference to our next product, CINCHONA, the history of which in Eastern lands, and the metamorphosis resulting in the cinchona bark and quinine trade, is probably without parallel in the whole history of agriculture and trade. The result has brought little or no permanent benefit to the planter, with the ruin of the bark trade as formerly conducted; but the consequent cheapening of quinine has proved an immense gain to humanity, especially in malarious countries, and the full extent of this has, as yet, by no means been realised. Systematic cinchona culture was first begun in Java; but Mr. Clements Markham was not far behind with his earliest batch of plants for the Nilgiris from South America, and, from the dépôt formed at the Royal Botanic Gardens at Kew, seed soon after reached the Ceylon Gardens. For a long time, though, our director could hardly get a planter to look at what they knew as "a medicine plant." The first private experiment was begun in 1863-4 by a Kandy firm, one former partner in which (Mr. Leake) I am glad to see in the room, and who still maintains a close connection with Ceylon. By-and-by plants were taken and put out to grow as ornamental trees, or as groves or shelter belts. After some years it was found, on stripping or coppicing such trees, that the return per tree or per acre was not simply handsome, but enormous, and gradually it dawned upon a good many that here was not only a suitable quick-growing plant, but a commercial product of high value. The steady failure in coffee which about that time set in, gave an impetus to the rush after cinchona, until there was scarcely a coffee district—nay, a plantation—which had not cinchona planted right over it. The few early planters, of course, profited heavily, some to the tune of £100 or more per acre cultivated; but there were only a few acres in most cases.

One old planter is fond of narrating how his partners threw away £35,000 to £40,000 because they would not allow him to put 150,000 cinchona plants on the boundaries and among the coffee in opening their plantation in the early sixties, an arrangement which (after striking off

half for deaths) would certainly have given £40,000 worth of bark seven to ten years later. In 1880 high-water mark for Ceylon bark may be said to have been reached, when a quantity from trees eight years old realized 10s. per lb.; while as high a price as 15s. 8d. was got for renewed bark from the Nilgiris. Is it any wonder, then, that the Ceylon planters, with their coffee crops growing smaller by degrees and beautifully less, should have all gone in for cinchona, until, in 1883, it was estimated there were 60,000,000 of plants or young trees growing in our hill-country? And men counting on one-half, one-fourth, or even one-tenth, of the return per tree that had been actually got by their neighbours, could not fail to reckon that fortune was within their grasp. For instance, seeing that seven to eight-year-old trees had actually given 15s. net per tree of bark, what could be safer than to count at least on an average of 2s. per tree, in which case it was plain that by 1888 to 1890 there would fall some five to six millions sterling to be distributed among the lucky Ceylon cinchona growers! How that dream vanished is, perhaps, to most of you a familiar tale. In the first place, hard necessity, or the failure of his coffee, forced the Ceylon planter ("my poverty and not my will consents") to harvest bark from young, immature trees, and exports ran up from 500,000 lb. in 1879 to nearly 12,000,000 lb. in 1884, and to close on 16,000,000 (as a maximum) in 1887. Even though such bark did not realise heavily, yet, seeing that the total supply from *all* countries, a few years before, did not equal 2,000,000 lb., the natural result was a great fall in price. "Who could have supposed," said an experienced ex-cinchona merchant to me the other day, "that when we gave out £75,000 in advances to South America on contracts based on 48 to 50 cents of a dollar per lb. for 2 per cent. bark, Ceylon was going to bring the price down to 1d. the unit!" But such was the case. Howard's quinine, which was 12s. 2½d. in 1878-9, fell to 2s. 4d. by 1886-7, and is now not much over 1s. per ounce. Very speedily the systematic cultivation of cinchona in Ceylon was discontinued, save on a few estates in the Uva province, where unusually rich bark can be grown and the risks of failure of plants are very few. But everywhere else tea took the place of cinchona, and over a wide expanse young plants of the latter were pulled out as weeds, until, from 60,000,000 trees in 1883, a liberal calculation now cannot make more than 7,000,000 to 8,000,000 of cinchona trees over two years old as growing in Ceylon, and the export of bark in the last four years has diminished to one-third of its highest figures. In proportion as the Ceylon export has fallen off, however, so has that of Java—where the planters, less pressed for funds, were able to allow their trees to mature—gone on increasing, and the bark is a much richer one. Java, in fact, along with Ceylon and India, now controls the market, leaving but little room for South American bark.

My estimate of the World's PRODUCTION, or rather SUPPLY OF BARK and CONSUMPTION OF QUININE *quantum valet*, is as follows:—

CINCHONA BARK.

Quinine required. Total in ozs.	Exports. Java, lb.	Exports. Ceylon, lb.	India, lb.	Total of quinine out of bark from Java, Ceylon, India, ozs.
1892 ... 9 mil.	8 mil. 4 p.c. bark.	5 mil. 2 p.c.	2 mil. 2½ p.c.	7½ mil.
1893 ... 8½ "	8½ " 4½ "	4 " 2½ "	2 " " "	8½ "
1894 ... 10 "	9 " 4½ "	8½ " 2½ "	2½ " " "	8½ "

There is in this reckoning a margin left for a fair proportion of South American bark; but if prices should improve, it is quite certain that Eastern lands could increase their exports, although if prices keep low for some years to come, and less and less attention be given to the trees, it is possible we may see a much smaller supply and a reaction in prices. Meantime, no one can be encouraged to plant *cinchona* in new lands, any more than *cinnamon* or *cardamoms*, at any rate until the demand and prices improve very considerably.

Rather different is the case of the next product I will venture to mention, namely INDIA-RUBBER, for which I understand there is a large and growing demand at remunerative prices, while there is the prospect of the supply from South America, Africa, and the East—nearly all from forest trees—gradually falling off, or at any rate below the requirements of manufacturers. If it be true, as I learnt, that the one province of Para in Brazil has developed an export equal to 17,000 tons per annum in a favourable year, and worth £3000 a ton or five millions sterling, all the rubber being got from systematic tapping of forest trees, there ought certainly to be room for extensive planting experiments, with a view to the supply of the future. In Ceylon, considerable attention was given to the cultivation of Caoutchouc or India-rubber-yielding trees over a dozen years ago, when we were hard pressed for products to take the place of coffee, and for some years great hopes were expressed that the industry would become a profitable and permanent one. Sample parcels of Ceylon Ceara-rubber harvested from trees eight to ten years old sold as high as 4s. per lb. It was stated that ten-years-old trees yielded $\frac{1}{2}$ lb. of rubber daily; this would pay fairly well if there were a sufficient area and number of trees to work over. But the rush into tea and the greater ease with which returns could be got from this product, together with the long time required by rubber trees to mature, and the greater expense in tapping and harvesting, discouraged farther planting, and I cannot speak of more than four hundred and fifty acres in all Ceylon as now being cultivated with rubber plants. However, of late years Dr. Trimen has been able to report favourably of experiments under his direction in the Botanical Gardens, and attempts are now being made by the Ceylon Forest Department to grow the tree in jungle clearings. The Gardens have also sent plants and seed to North Borneo and East Africa. In Colombo we have endeavoured to bring together all the information about rubber into an "India-rubber Planters' Manual," and there can be little doubt, if the Ceylon garden and forest experiments go on well during the next few years, that planters will once more take up the industry, and there should be a large extent of land fit for such cultivation, although unsuited perhaps for more popular but delicate products. Meantime, there is in the European and American demand, and market prices, encouragement to cultivate generally in the tropics the plants which yield the rubber and guttapercha of commerce.*

I might here refer to several minor products such as GAMBIER KOLANUT and ERYTHROXYLON COCA, in which interesting experiments are being made in Ceylon under the auspices of Dr. Trimen and the Botanical Gardens (backed up by Kew, whence aid is always readily procurable), and of a few of our planters; but these have not yet advanced

* Since writing the above, I have learned that Dr. Trimen does not favour the cultivation of rubber-yielding plants as suitable for private enterprise on account of the long period required before the plants can give adequate returns.

to the importance of planting industries, and I must pass on to consider the COCONUT* PALM industry and the different commercial products derived therefrom. There are said to be over a thousand known species of palms, but not more than twenty-five are found in Ceylon, though these include the best known and most useful, more particularly the coconut, palmyra, areca, kitul or jaggery, and talipot palms. These are of vast importance for food and other domestic and general purposes to many millions of the people of India and Ceylon as of other tropical lands; but commercially, so far as the markets of Europe and America are concerned, we need notice only the COCONUT PALM, with the kernel of the nut used in many forms, the oil prepared from it and the fibre from the husk. This palm constitutes a very important garden and plantation industry in Ceylon, chiefly in the hands of natives—Sinhalese and Tamils—who extended the cultivation of palms very greatly with the money which the coffee industry and the trade created by it put in their way. Altogether we reckon there are over 500,000 acres in Ceylon covered with from forty to forty-five millions of coconut palms, yielding annual crops worth perhaps about two millions sterling, the greater part of which is consumed in the island; but of which, in a favourable season, perhaps nearly one million sterling worth is sent away, chiefly in COCONUT OIL, COIR FIBRE and YARN, NUTS, COPRA (the dried kernel), DESICCATED COCONUT (a new preparation for confectionery), ARRACK and other minor products. Some of the largest oil-expressing mills in the world are to be found in Colombo, and over 400,000 cwt. of coconut oil was last year exported, apart from 100,000 cwt. of coir fibre, yarn and rope; some millions of nuts, and large quantities, perhaps 800,000 cwt. more of COPRA, PUNAC and DESICCATED COCONUT. In all, in a favourable year we make up about 80,000 "shipping" tons of freight with the exported produce of our coconut palms; but the trade, especially in oil, is far from leaving the margin of profit that it once did. African palm oil and other competitors have gradually brought down the price of Ceylon coconut oil from £50 per ton, which I remember it to have been thirty years ago, to not much more than half, or well under £30 at present. Save where there is a good local market for the nut and its contents, or proximity to the American market, as in the West Indies, there is not much encouragement therefore to Europeans to plant with coconuts. But still, in suitable parts of Ceylon, where the tree comes into bearing in less than the average period (which is about fifteen years), a coconut plantation is not without its attractions to the capitalist, for it is assuredly the most stable and long-lived of cultivated tropical products. Altogether, I estimate there are over three millions of acres under the coconut palm alone in the world. It may be of interest to give the distribution of the exports of coconut palm products from Ceylon for last year and the total exports for five years; and these will be found in an Appendix.

I now turn to COCOA, the product of the CACAO or CHOCOLATE tree. (There is great danger of this product being confounded in name with the palm, and indeed many English consumers believe that their cocoa drink has to do with the coconut palm. Since Mincing Lane has stereotyped "Cocoa" in place of "Cacao," the distinction we have tried to make in Ceylon is to leave out the "a" in the name of the palm and its

* To distinguish this palm and its products from "Cocoa" the product of Cacao (the chocolate tree) we in Ceylon spell the palm's name now as "coconut."

products, this spelling being also more in harmony with the botanical name of the latter.) Cacao is supposed to have first been introduced into Ceylon in the time of the Dutch, and it was certainly grown in the Botanical Gardens seventy-five years ago, but not until 1872 was its systematic planting commenced by the late Mr. R. B. Tytler, and now we have about 13,000 acres cultivated with this product, the total export for last year being over 20,000 cwt.

This, although to a certain extent satisfactory, indicates but slow work in the development of a tropical industry, at least in Ceylon—which in less than a dozen years saw such wonderful development in respect of coffee, cinchona, tea, etc.—slow especially when the encouragement of a good demand and remunerative prices is considered. But our experience of cacao in Ceylon fully accords with that of the Dutch authority on the culture in British Guiana, when he wrote eight years ago that “there is no agricultural production that requires more care, trouble, patience, perseverance, and outlay, than cacao”; but against this adverse experience, which he said generally lasts over the first ten years of the plant, there followed, perhaps, a century of success, during which time the cacao tree, if properly cared for, yields steadier crops and handsomer profits than almost any other product. At any rate, in Surinam there exist, according to Mr. Berthelink, cacao plantations which have descended from generation to generation, representing great wealth in their annual crops, and which after a long course of years have lost no jot of their productiveness, but have rather increased in value. In Java there is, however, on the whole, no doubt a better soil for cacao than in Ceylon; with us the area can never be very greatly extended, because of the plant requiring both good soil and an exceptionally sheltered situation; for it has been found that strong wind is a great and almost fatal enemy to it in its early years. Those who do own well-established cacao plantations in Ceylon, in the West Indies, Java, or Guiana, may therefore be congratulated on having a product for which the demand is well in advance of the supply, and the price of which is less subject to fluctuations than that of most tropical products. I am hopeful still that we may see an appreciable addition to the cultivation in some parts of the low country—by the native villagers in their gardens, as well as by planters; also in the rich province of Uva, when Sir Arthur Gordon's Railway Extension is in full working order, and the resources of the district can be adequately utilised. So far, what the Ceylon cacao planter especially prides himself upon, is the improved preparation of his product for the London market. The industry is scarcely more than a dozen years old in Ceylon (only 120 cwt. were exported in 1880), and yet in that period more improvements have taken place in the preparation of the pod than has been the case in Guiana and the West Indies during the century.* I see in the room one of the Ceylon pioneers in this planting industry who recently visited some of the finest West Indian plantations, and he

* Many inquiries have been addressed to me by persons interested in the West Indies as to the causes of the much higher prices reached by the Ceylon product. So far as I am able to judge I believe it to be almost wholly due to the greater care and skill employed in the processes of manufacture, and especially to the copious washing and thorough drying of the beans. I do not think it possible to attribute it to any general superiority in the cacao here grown, for, as remarked in my last Report, it holds good both as to the “Old Red” and “Forastero” varieties, though no doubt it is the former sort alone which exhibits the peculiar light colour of the interior so appreciated by the chocolate maker.—*Dr. Trimen in his Report on the Royal Botanic Gardens of Ceylon for 1891.*

was simply astounded at the rough, primitive way in which the factory work was done, while another gentleman, writing to me the other day, says that after seeing the Trinidad system of claying over the pods, he did not think their "cocoa" was food for men, far less for gods, alluding to the high-sounding name *Theobroma*. This is, of course, going a little too far; for all the cocoa that comes to the London market is no doubt equal to yielding a most nutritious beverage; and I am aware that West Indian proprietors aver that their system of preparation is less expensive. Nevertheless, I think there can be no question of the superiority of the Ceylon system and product, as indeed is proved by the price obtained. There is little doubt that if Ceylon produced 50,000, or even 100,000 cwt. of cacao in place of 20,000, a ready and profitable market would be found for it. This, then, is a product, the cultivation of which on suitable fertile soil, in sheltered situations, whether in Ceylon or elsewhere in the tropics, provided cheap labour is available, can be strongly recommended to capitalists or pioneer planters.* In these Appendices, will be found the figures for export and distribution of Ceylon cacao, and also an approximate estimate of the world's production and consumption.

I have now to refer to COFFEE, once the great staple product of the planting industry in Ceylon. Beginning with an export of 30,000 cwt. in 1837, our crops increased until in 1870 we shipped more than a 1,000,000 cwt., and we continued this, more or less, on to 1875 and 1877, the greatest area planted being 275,000 acres.

Most of you, gentlemen, are aware of the woeful change effected through the operation of a minute fungus on the coffee leaf, first noticed in 1869, and which, though fought against for twelve years, with all that practical skill and science and experimental treatment could devise, gradually wore out the coffee fields in all the older districts, and so affected what has been retained in cultivation, that last year only 90,000 cwt. were exported from about 40,000 acres, thus carrying us

* Mr. John Hughes, of 79, Mark Lane, Consulting Analytical Chemist to the Ceylon Planters' Association, sends me figures to show that the crop from the cacao plant is not so exhausting to the soil as that from the tea-bush:—

"One thousand pounds' weight of Trinidad cocoa-seed, as removed from the pods, contains as follows:—

Nitrogen	...	...	...	...	...	...	23½ lb.
Potash	...	...	...	...	...	...	10½ "
Phosphoric acid	...	...	...	...	...	...	8½ "
Lime	...	...	...	...	...	...	2½ "

whereas one thousand pounds of made tea leaf contains:—

Nitrogen	...	...	...	...	...	...	45 "
Potash	...	...	...	...	...	...	22 "
Phosphoric acid	...	...	...	...	...	...	8 "
Lime	...	...	...	...	...	...	2½ "

Mr. Hughes adds:—"From the above results it will be seen that cacao as a crop cannot be considered as exhausting as tea. The principal mineral constituent in both cacao and tea is *potash*, hence the importance of the soils selected being as rich as possible in this particular mineral constituent is very obvious. I should imagine that cacao soils should be generally a rich loam, capable, under favourable climatic conditions, of producing crops of good quality for a great number of years with but little manure. I believe it will be found that tea will require manuring if estates are to keep up their yield of made tea of good quality; but that cacao, if planted on naturally good and suitable soil, will continue in a flourishing condition and yield well for many years without any manure whatever."

back in Ceylon to the position occupied in respect of coffee well nigh fifty years ago. The spread of the disease can only be compared to that of the *oidium* and *phylloxera* in the vine; for the coffee industry in Southern India, in Java, and the East generally, all suffered in the same way; and although the younger plantations in the richer portion of Mysore and Coorg, and in some parts of Java, as well as in the Uva and parts of the Dimbula and Dikoya districts in Ceylon, have resisted its ravages so as still to yield remunerative crops at the high prices recently available; yet there does not seem sufficient encouragement to justify fresh cultivation within the area troubled by the fungus, at least of the same species of coffee. The time has not yet come when young clearings of Arabian coffee in Ceylon could be expected to escape a full dose of the fungus. The case is rather different in new regions, and planters from Ceylon have been experimenting in the Malayan Peninsula in North Borneo, Northern Queensland, on the Blue Mountains of Jamaica, as well as in Brazil and Guatemala, and, last of all, on the hill ranges of Nyassaland in East Africa, whence very good accounts have recently been received of coffee-planting prospects. Attempts made in virgin soil, in the midst of primæval forests in Perak, in the Malayan Peninsula, are said to promise very well. Certainly the relation between supply and demand in respect of coffee—the high prices prevailing, and the limited supply of a really fine product, notwithstanding the wide extension of cultivation in Brazil, and much progress in Central American States—would seem to encourage capitalists and planters to do their best to open up new coffee-growing fields. In this connection I may refer to the recent mission of two reliable and experienced Ceylon planters on behalf of the Peruvian Corporation to the upper valley of the Amazon in Eastern Peru, where they found a wide expanse of rich, well-watered forest land, admirably suited for the cultivation of coffee and cacao, and already steps have been taken to send out small colonies of cultivating settlers—Italians chiefly—under the charge and direction of Scotchmen, planters and gardeners, to make a beginning in the Perene valley. Of course the lack of a good and cheap labour supply is the difficulty in opening up new land for tropical products in most countries.

The preparation of coffee, through steadily improved processes and much ingenious machinery, was brought nearly to perfection in Ceylon during the palmy days of the enterprise; and by degrees the improved machinery found its way—in many cases from Colombo—to the Indian districts, to Java, Guatemala, and Brazil. Now, of course, we in Ceylon can only stand aside and watch the progress of our neighbours, there being no prospect of our exceeding, even if we reach, an export of 100,000 cwt. of coffee, for many years to come.

My remarks, so far, however, chiefly apply to the best-known coffee, the Arabian, or rather Abyssinian shrub. Among the efforts made by Ceylon planters to fight the fungus were several for the introduction of new coffee-seed from regions unaffected by disease. In this way selected seed from isolated plantations in Mysore, from Mocha, and more especially seed of a new species of coffee from Liberia, West Africa, were procured. But none showed immunity from the fungus; on the contrary, in some cases the disease seemed to revel more abundantly in the new clearings. But in the case of Liberian coffee, though fungus-stricken, the bush or tree was a much bigger and more vigorous one than that of the Arabian species, requiring, however, a longer time for the tree to bear crops and for the berries to mature. These facts, coupled with the abundant appearance of the disease, discouraged the promotion of the enterprise

—begun very freely in different districts—with Liberian coffee; and tea proving a success just at that time, the new coffee was discarded, abandoned, and in some cases the plants were pulled out to make way for tea. It is now generally felt in Ceylon that those concerned were too hasty in giving up their trial of Liberian coffee. This is shown not only by the experience gained over the area (1500 acres of all ages) still left to us, from which nearly 3000 cwt. were exported in 1890; but still more by what has been done in Johore, North Borneo, and especially Java. Dr. Trimen, our very observant, cautious Botanical director, as the result of a visit to Java last year, has written in his Official Report to the Ceylon Government, a few months ago:—"I am more than ever of opinion that the cultivation of Liberian coffee in Ceylon was too hastily abandoned, and would be still a profitable one." It is in this direction, then, that we may hope for some further coffee-growing in Ceylon. Native villagers are already being encouraged to grow the Liberian plant, which, like cacao, is admirably adapted to many of their gardens, while the crops are easily gathered and are readily sold in a good market. In the valleys of Uva again we may soon find the robust Liberian coffee freely planted along with cacao even under European auspices. Still it can only be the day of small things with coffee, though we may have a revival of cultivation, for a long time in Ceylon; and, therefore, apart from Brazil, Central American States and Java, so far as British enterprise is concerned, the hope of fresh supplies must be directed chiefly for the present to the Straits Settlements, North Borneo, and the ranges of Zambesia and Nyassaland in East Africa, together with what may be added from plantations in Jamaica or adjacent territory, where, however, labour is by no means certain or cheap enough to enable much to be done. In these Appendices, will be found the statistics of export and distribution, and also an estimate of the world's production and consumption of coffee.

Finally I have to direct your attention—and that very briefly—to what is undoubtedly the most important division of Ceylon planting enterprise at the present time, namely, TEA, our staple product now *par excellence*. There is little need for me here to recapitulate facts within the cognizance of most of you, and which have recently formed the subject of correspondence in the public press; but I may say that although there is a tradition that the Dutch tried tea cultivation in Ceylon and failed, it is more likely that the first tea-plants introduced into Ceylon were from Assam, in the time of Governor Stewart-Mackenzie, in 1839-40. Soon after, tea-plants were brought from China by the Messrs. Worms, uncles of the present Under-Secretary of State for the Colonies, and planted by them on "Rothschild" and neighbouring properties. The plants grew fairly well, and the owners imported a Chinaman to show how tea should be made; but he proved a rogue, each lb. of tea costing about £5 sterling to produce! This experience and the success of coffee deterred any farther tea experiments till 1866, when a gentleman, now in this room (Mr. Leake) made a first importation of Assam-hybrid tea seed, but notwithstanding the cultivation that followed, and some successful attempts at tea-making, the planting industry cannot be said to have been fairly commenced before 1875, by which year about 1000 acres were planted, and indeed only 10,000 acres were cultivated with tea by 1880; but by 1885 the extent had risen to 100,000 acres, while 1890 saw this area more than doubled, and now we count about 255,000 acres planted with tea, or very nearly the maximum extent ever reached by coffee. In the same way our exports, beginning with 3000 lb. fifteen years ago, got to be over 3 millions by 1886;

47 million lb. five years later, in 1890; 68½ million lb. in 1891; and this year they are to be nearer 80 than 70 million lb., I suppose. Ceylon has therefore, in less than seven years, sprung up from quite an insignificant position, to rank alongside of India and China—the two greatest tea-producing countries of the world. The wonder now is, of course, that the admirable fitness of the south-west moist zone of Ceylon to grow tea was not seen thirty or twenty years ago. No country in the world is more capable of producing leaf crops: we have a constantly high temperature, with rains (rich in ammonia) every month of the year, and we find in tea a plant so hardy and adaptable that it flourishes from the sea-board to the tops of our highest plateaux or mountains. Tea is indeed so hardy that it can be grown with some care in temperate regions, as may be seen at Earl's Court Gardens at present, and I saw it flourishing in the open air at Washington in 1884; but not, of course, so as to produce proper and plentiful flushes. But still it is not alone soil or climate so much as an abundance of suitable cheap labour that is necessary to the success of a tea-growing country, and here Ceylon, like India and China, has the advantage.

The cleanly and better mode of preparation adopted for Ceylon, as for Indian tea, gives it a great advantage over that of China, and should cause tea grown in British Dependencies to be preferred throughout Europe and America.

Much has also been done by improved machinery and factory arrangements to ensure the better and more economical preparation of tea in Ceylon. But I consider that there is still plenty of room for the application of the skill of the agriculturist in the field, of the planter and his assistant in the factory, as well as of the chemist, the machinist and the tea expert, in order to secure even greater improvements in cultivation and preparation.

As regards the future of tea in Ceylon, there is no reason why we should not see the planted area still farther extended, and the export thereby increased, provided remunerative prices are maintained. Although the greater portion of the land best fitted for tea is no doubt already planted, still out of 300,000 acres reserve in the hands of owners of plantations, there must be a good deal that could be put into tea if only the "Will it pay?" condition is satisfactorily answered. It is possible, too, that the Sinhalese may take to growing tea freely in their village gardens, and so add largely to production, selling the leaf perhaps to the nearest factory. But, to balance this, we expect a large local consumption of our commoner teas to spring up among the natives both of India and Ceylon. Universal tea-drinking, could not fail to benefit the mass of the people; for most true is the old adage in the East, that there is nothing more dangerous to drink than brandy *except* water!

If there is to be a struggle for existence, in the face of the tea supply increasing out of proportion to demand, we in Ceylon believe that with our advantages of climate, labour supply, and ready means of transport, we can hold our own against India, China or Java. What we want now is to get the people of America and Australasia, as well as many on the Continent of Europe, to use Ceylon and Indian teas as freely as do the people of the United Kingdom, and then we should have an assured market. Of the prospect of progress in this direction, we hope to hear this afternoon from the Ceylon Commissioner to the Chicago Exhibition, and very satisfactory are the latest statistics showing the great increase in Ceylon tea exports from London. In the Appendix will be found the latest statistics of production and consumption, etc. Meantime, as regards production generally, I cannot help being reminded of the

commentary which these modern times must suggest on the well-worn saying, that he was the greatest benefactor of mankind who caused two stalks of corn to grow where only one grew before. In the present depressed state of British agriculture, our farmers at best will scarcely agree in this dictum of the famous Dean of St. Patrick's; and much the same experience has been realised through the over-production of some of our tropical products.

I think it will be seen by any one who studies the statistics which I offer with this paper, that there is very little encouragement to attempt the cultivation of *Tea* in other countries, than those in which it is at present established—at any rate with reference to the markets and requirements of Europe and America. This I have also shown to be the case in regard to *Cinchona Bark*, *Cinnamon* and *Cardamoms*, and to some extent in respect of the produce of the *Coconut Palm* and *Pepper*. In the case of the first named (*Bark*) the commanding position once held by Ceylon has been acquired by Java; but in all the rest, as to a great degree in *Tea*, our island holds the pre-eminence. The case is different in regard to *Coffee*, probably *Cacao* ("Cocoa"), and certainly *Rubber*. For the cultivation of each and all of these valuable products in new lands there is much encouragement, and, whether it be in Peru and the valley of the Amazon, in East Africa, Borneo, the Malayan Peninsula or in Ceylon itself, there is room for the pioneer, the planter and the capitalist to do what they can to add to the supply.

I have ventured to take up a very wide subject in dealing with the position of the several important products referred to, and my treatment has been, I am conscious, very inadequate; but, whatever else may be the result, I trust enough has been said to excite increased interest in the island whose industries have afforded me a text:—the first and most enterprising of Crown Colonies and the best school for tropical planters in the world. That there is still ample room for experiment and extension in Ceylon may be judged from the fact that of sixteen million acres, the area of the island—or say twelve millions, excluding lakes, tanks, lagoons and rivers—little more than one-fourth, or three and a-quarter million acres, are, so far, under cultivation.

I might have alluded to several other products, to the supply of which British capital and skill might be directed. In *Fibres* for instance there is much scope, Ceylon being quite a paradise for the growth of fibrous plants. There are also some valuable medicinal plants in demand, as well as other food products. There are valuable timber supplies to be rendered available, as well as farther cultivation to be facilitated, by Railway extension to North Ceylon, while plantations of ornamental and useful timber trees are likely to prove remunerative. In passing, I may further say that there is room for the proper development of our *Plumbago* mines, yielding even now over 20,000 tons a year; and of hidden wealth in Precious Gems such as are dug out to the value of £20,000 every year on their own account by the Sinhalese. In all such directions, and in enterprises appertaining to a British Dependency, I feel sure your capital would, at least, be more wisely and safely invested, from time to time, than it has been when given to projects in Foreign States such as the badly governed, unreliable republics of South America.

ADDENDA.

ESTIMATES OF THE WORLD'S PRODUCTION AND CONSUMPTION OF COCOA, COFFEE, AND TEA.

[Compiled by Mr. J. Ferguson for "Ferguson's Ceylon Handbook and Directory."]

I.

COCOA: PRODUCE OF "THEOBROMA CACAO."

APPROXIMATE ESTIMATE OF THE WORLD'S PRODUCTION AND CONSUMPTION.

COUNTRIES.	Production.	Cwt.
Brazil	60,000
Celebes and adjacent Islands	8,000
Ceylon	20,000
Central America	85,000
Trinidad	140,000
Dominica 2,000; Grenada 30,000; Jamaica 5,000; San Domingo 10,000; St. Lucia 8,000; St. Vincent 8,000;
Total	53,000
Ecuador and Peru	200,000
Venezuela	200,000
Guadeloupe	2,000
Guiana (French) 2,000; (Dutch) 30,000; (British) 6,000; Total	38,000
Hayti	38,000
Martinique	7,000
Mexico	20,000
Philippines	5,000
Réunion	1,000
Total	877,000

COUNTRIES.	Consumption.	Cwt.
America, North and Central	90,000
America, South	65,000
France and Dependencies	195,000
Italy, South Europe and Mediterranean	80,000
Germany and North Europe	55,000
Spain and Dependencies	170,000
Switzerland and Central Europe	60,000
United Kingdom	100,000
United Kingdom non-cocoa-producing Dependencies	25,000
West Indies	85,000
Total	875,000

Another estimate gives the total production and consumption of cocoa at 80,000,000 lb. The consumption of cocoa is constantly increasing, especially in Latin Europe, and in the United States, where its use has increased sixfold since 1860, while that of tea and coffee has not more than doubled. There is no reason to fear over-production for many years to come. Trinidad has 43,360 acres under "cacao and coffee" according to assessment, but this must be chiefly under cacao alone, for the export has been as high as 150,000 to 160,000 cwt. in one year.

II.

THE WORLD'S PRODUCTION OF COFFEE.

COUNTRIES.	Estimated Area under cultivation.	Present Maximum Export of Coffee.	Estimated Local Consump- tion.	Total Maximum Production.
	Acres.	Tons.	Tons.	Tons.
Brazil, (including exports from Rio Santos, Bahia, Pernambuco, and Ceara)	2,500,000	465,000	85,000	500,000
Java, Sumatra, and Dependencies	500,000	50,000	7,000	57,000
Ceylon	45,000*	4,000	800	4,800
India	250,000	18,000	2,000	20,000
Central America and Mexico (all countries between United States and New Granada)	600,000	70,000	15,000	85,000
Venezuela, Colombia or New Granada, Peru, Bolivia, and Guianas	400,000	40,000	10,000	50,000
Haiti and San Domingo	320,000	35,000	8,000	43,000
Cuba and Porto Rico	280,000	25,000	10,000	35,000
The remainder of West Indies (Jamaica, etc.)	45,000	5,000	2,500	7,500
Arabia, Madagascar, Mauritius, Réunion, Abyssinia, Mozambique, and North-East Coast of Africa	320,000	12,500	22,500	35,000
Natal	800	20	80	100
Liberia, West Coast from Congo to Cape de Verde Islands, including Lagos, Sierra Leone, Gambia, Gold Coast, Elmina, St. Thomas, St. Helena, etc., etc.	150,000	8,000	12,000	20,000
Philippines (Manila), Celebes, and rest of Eastern Archipelago	55,000	7,500	3,500	11,000
Sandwich Islands and rest of Pacific Isles, including Fiji and New Caledonia	8,500	500	700	1,200
Total	5,454,100	740,520	128,580	869,100

The value of the world's production of coffee (about 17 million cwt.) would be about 70 million pounds sterling in the wholesale markets.

ESTIMATE OF THE WORLD'S CONSUMPTION OF COFFEE.

	Tons.
Continent of Europe	435,000
United States and Canada	280,000†
Mexico, Central American States and the West Indian Islands	80,500
Brazil and the rest of South American States	38,500
Asia, including India, Java and the Eastern Archipelago	87,000
Africa	25,000
United Kingdom	14,000‡
Australasia and Pacific Isles	5,000
Total	868,000

* Including native gardens and Liberian coffee.

† What tea is in the United Kingdom coffee is to the United States, and more especially the Southern States.

‡ The consumption of coffee in the United Kingdom rose to 16,730 tons so far back as 1847; since then consumption has declined.

This is about the total result in a year of abundant production. In 1820 the world's consumption of coffee was not more than 200,000 tons.

[For further information as to these Estimates and Explanatory Notes, reference can be made to "The Ceylon Handbook and Directory."]

III.

APPROXIMATE ESTIMATE OF THE TEA PRODUCTION OF THE WORLD.

	Area cultivated. Acres.	Production. lb.	Exports. lb.
China	10,000,000	1,040,000,000 ^a	240,000,000 ^b
Japan	750,000	100,000,000 ^c	45,000,000 ^c
India	380,000	180,000,000	125,000,000
Burma and Andamans ..	20,000 [*]	2,000,000	...
Ceylon	255,000 ^d	80,000,000	79,000,000 ^d
Java	70,000 ^e	12,000,000	10,000,000 ^e
Natal	800 ^f	70,000	...
Fiji, Jamaica	500 ^f	80,000	...
America (Brazil, California, and other small producing countries)...	10,000	800,000	100,000
„ „ (Besides Mate tea, indigenous or wild) ...	...	20,000,000	5,000,000
Straits Settlements and other small producing countries ...	600 ^g	20,000	5,000
Total	11,486,400	1,884,920,000	504,105,000

^a Of the 300 millions of population of China and its dependencies, every one who can possibly afford it is said to drink tea morning, noon, and night, a wise habit in a country where the water is specially dangerous from bad sanitation, etc. The area of unoccupied land suitable for tea planting is practically unlimited, and as of the tea planted much remains unpicked every year, it may be presumed that the cost of the beverage is not much hindrance to tea drinking among almost all the adult population. The cost of the raw leaf is said to be 2d. a lb.; picking, firing, land-carriage, and duties, export duty and freight and charges, make up the cost of the better teas to 8d. a lb. Inferior tea is often sold at a loss at the China ports as well as in London.

^b Including about 45 millions brick and other tea sent to Thibet, Central Asia, etc.; 65 million lb. to United Kingdom; 85 million lb. to America (besides Japan); 70 million lb. to Russia, including the export to Siberia as well as Russia overland; 20 million lb. to Australia and other places.

^c In 1866-7 Japan sent 12½ million lb. to Canada and 84½ million lb. to United States, altogether 47½ million lb.; but latterly the export has fallen off. In Japan, as in China, the people drink an immense quantity of tea.

^d A good deal of young tea: exports in season 1891 were over 68 million lb., and in 1892 they will be probably close on 79 million lb.

^e The Assam hybrid plant is now beginning to be chiefly cultivated in Java. English machinery is being introduced for preparing tea, and "Java" tea is now an acknowledged competitor of Indian; cultivation and preparation being carefully attended to.

^f Acreage chiefly of young tea.

^g Russia is trying to grow tea in Central Asia, having a plantation at Soukhum Kaleh, to be worked by Chinese coolies; also, tea is being tried in the Caucasus.

* Part indigenous tea in Upper Burma.

IV.

ESTIMATE OF TEA CONSUMPTION OF THE WORLD.

	lb.
Australasia <i>a</i>	32,000,000
British North America <i>b</i>	21,000,000
British West Indies, Guiana, and Honduras ...	800,000
British West and South Africa and adjacent Isles <i>c</i> ...	3,000,000
West-Central Asia, apart from Russia <i>d</i> ...	3,000,000
Thibet, Persia, and East Asia outside China ...	40,000,000
Ceylon <i>e</i>	600,000
China <i>f</i>	800,000,000
Europe, Continent of (apart from Russia) <i>g</i> ...	18,000,000
India	3,000,000
Japan	55,000,000
Java	2,000,000
North Africa (Morocco, Egypt, etc.) ...	1,000,000
Russia (in Europe and Asia) <i>h</i>	78,000,000
South American States <i>i</i>	15,250,000
Straits Settlements and Eastern Archipelago ...	1,000,000
United Kingdom <i>j</i>	210,000,000
Channel Islands ..	750,000
United States, with Pacific Coast	76,000,000
Total	1,359,900,000

a Australasia now gets 9 to 10 million lb. Indian and Ceylon tea, the rest from China and Japan.

b Canada gets 8 million lb. tea from the United Kingdom, and 13 from China and Japan.

c Two million lb. are reported as imports into Cape Colony and Natal.

d Afghanistan, and territory beyond, get 1 million lb. Indian tea and 1½ China through India.

e Tea is taking the place of coffee among the natives of Ceylon and India as a drink.

f See note to China under Production.

g Germany 4½ million lb.; Holland 5½; Denmark 1; Norway and Sweden ½; France 1½; Austria 1½; Spain and Portugal 1; rest 3.

h Half this quantity is conveyed overland from China *via* Siberia, and the other half by sea through the Black and Baltic Seas (Odessa and Kronstadt), or through Germany. Tea cost Russia about 6 million pounds sterling per annum some time ago.

i Including the consumption of Mate tea.

j In 1717 the tea sold in England was 700,000 lb.; in 1787 it had risen to 19 million lb. received in 27 ships. In 1886-7 the deliveries were over 221 million lb.; but in 1887-8, through the use of more of the stronger Indian tea, the total fell to 218,200,000 lb. (86 million Indian, 117 China, 12½ Ceylon, 3 Java). In 1887 the United Kingdom home consumption was 183,680,000 lb.; export 84,741,000 lb.; transhipped 9,014,000 lb.; total 227,891,000 lb. In 1891 the total imports were 289,845,774 lb., deliveries for home consumption 200,065,005 lb., for re-export 82,988,834 lb. Of the home consumption 97,854,612 lb. were Indian; 51,893,481 lb. Ceylon; 48,950,554 lb. China; 1,866,858 lb. other countries.

From the *Ceylon Observer*, August 17th, 1892.

TROPICAL PRODUCTS: THEIR CONSUMPTION AND PRODUCTION.

LONDON, July 29th, 1892

I AM not able to send you a copy of my paper prepared for the London Chamber of Commerce, because, unlike the Colonial Institute, they do not have their papers printed beforehand,—all the Secretary required was a *résumé* to have multiplied by type-writer, for the use of the daily press. However, the MS. left in charge of Mr. Kenric Murray will appear in the *Journal* in due course; while the greater part is likely to be reproduced to some of the weeklies—the *Grocer*, for instance, from whom requests came after the meeting for the use of the copy. Nearly all the London dailies, too, had summary reports of more or less fulness, that of the *Times* being at once the clearest and most concise, while the *Evening Standard*, *Daily Chronicle*, *Morning Advertiser*, *Financial Times*, and especially the *Manchester Guardian* had fuller details. I send you the *Times* notice in case your regular correspondent has missed it:—

“TROPICAL AGRICULTURE IN CEYLON.—Before a meeting of the London Chamber of Commerce, held yesterday in the Council-room, Botolph-house, Eastcheap, Mr. J. Ferguson read a paper on “The Production and Consumption of Tea, Coffee, Cacao (cocoa), Cinchona, Coconuts and Oil, and Cinnamon, with reference to Tropical Agriculture in Ceylon.” Sir Arthur N. Birch, late Lieutenant-Governor of Ceylon, presided, and among those present were Sir A. Gordon, Sir G. W. R. Campbell, Mr. D. Morris (Assistant-Director of the Kew Gardens), Mr. Epps, Mr. J. Whittall, Mr. Robert Wales, Mr. W. J. Thompson, and Mr. J. Chambers. Mr. Ferguson referred to the position of Ceylon, its forcing climate, its command of free cheap labour, and its immunity from the hurricanes which periodically devastated Mauritius from the cyclones of the Bay of Bengal, and from the volcanic disturbances affecting Java and the Eastern Archipelago. The plantation of Ceylon afforded, he said, the best training in the world for young men in the cultivation and preparation of tropical products, and in the management of free coloured labour. The cultivation of cane sugar, although tried at considerable outlay on several plantations 40 and 50 years ago, proved a failure. More recently, experiments by European planters with tobacco had not been a success, notwithstanding that the natives grew a good deal of a coarse quality for their own use. Although cotton-growing had not been successful, the island had proved a most congenial home for many useful palms, more particularly the coconut (spelt without the ‘a’ to distinguish it and its products from cocoa, the beans of the shrub *Theobroma cacao*) and palmyra, as also the areca and kitul or jaggery palms. Within the past few years Ceylon had come to the front as one of the three great tea-producing countries in the world, India and China being the other two, with Java at a respectable distance. Mr. Ferguson said one of the chief objects of his paper was to demonstrate which of the products of the island it was safe to recommend for extended cultivation in new lands and which were already in danger of being over-produced, and he had arrived at the conclusion that coffee, cacao and rubber-yielding trees were the products to plant, while tea, cinnamon, cardamoms, cinchona bark, pepper, and even palms (for their oil) did not offer

encouragement to extended cultivation. Statistics relating to the total production and consumption were given in an appendix."

The chief practical object I had in view was to show City men and British capitalists generally in what direction the cultivation of tropical products had been, and might be, overdone. I had no difficulty, of course, in demonstrating that cinnamon, cardamoms, and cinchona bark were products which it would be foolish to grow for the European or American markets in any new countries in view of what Ceylon could do at prices scarcely, if at all, remunerative in some cases. Then there were the oil and fibres of the coconut palm, for which prices were very low at present, though, of course, there would always be a "home consumption" in new countries for palm products. And there was pepper, which I had put down as a product to be cultivated for a good demand beyond supply; but fortunately I ran round "The Lane" before the time of my meeting and learned from Mr. Figgis how much the case was the other way,—that pepper was coming in almost superabundant quantity from the Far East and the price falling to 2*d.* a lb.! So I put pepper also among products in danger of being overdone.

The paper, which occupied three-quarters of an hour in reading, seemed to give general satisfaction, and I ought to have said that so large a gathering has seldom if ever taken place in the Chamber's Hall—an ante-room having to be thrown in for the accommodation of visitors. This was due not only to the considerable number of City men interested in the subject of the paper, but also to the many Ceylon friends who put in an appearance. Among the members of Council present, were Mr. A. Thompson (of the well-known broking firm); Mr. James Chambers of Fenchurch Street, who, being Chairman at a lecture I gave at Croydon, was the means of getting me to prepare the paper for the Chamber of Commerce; Mr. Robert Wales, and two or three other old merchants whose names I did not catch. Mr. D. Morris of Kew, and Mr. Epps, a member of the firm that was the first to introduce Ceylon cocoa, sat at one end of the table, and Sir Arthur Gordon, Mr. Grinlinton, Sir G. W. Campbell, and Mr. Whittall, near the other. Right in front were Mr. C. S. Hadden, Peter Moir, S. Butler, G. S. Duff, Alex. Brooke, P. C. Oswald, W. M. Leake, C. Shand, T. C. Owen, Alex. Ross, John Anderson, G. G. Anderson, Norman Grieve, Tom Gray, T. J. Lawrance, W. H. Anderson, Geo. White, John Hamilton, H. Walker, also Messrs. R. S. Atkinson, W. Scorey, Hugh Fraser, W. Gow. A. H. Rosemalecoeq, V. Vanderstraaten, J. H. Barber, W. Sproule, Hon. C. Seneviratne, T. J. E. Johnson, John Hughes, Arnold White (and Mrs. White), A. C. Folkard, Wm. Digby, J. M. Morgan, J. Offord, John Haddon, Lloyd, Massingham, and many more whom I now forget. I hope your regular London correspondent will be able to give a *résumé* of the interesting discussion which followed. This was opened by Mr. GRINLINTON, who, referring specially to tea, gave an account of what had been done to win over the Americans to the Ceylon product and of the prospects of the Exhibition. Mr. D. MORRIS followed in a very practical, interesting address: he criticised and took exception to some of the statements in reference to West Indian, as compared with Ceylon cocoa; he thought more might have been said about the coconut as a promising product for planters, and also in reference to Ceylon that Europeans might go in for rice cultivation; but Ceylon planters really required to pass a self-denying ordinance to prevent their going too far with any one product in the future as in the past. Mr. Morris referred in an appreciative and interesting way to his own experience of the planters in Ceylon, as also to his stay in the West Indies; and he specially returned thanks for the

references to the good work of "Kew," and said how ready they were always to aid the tropical planter. By the way, he mentioned "arnotto" as a minor product of which a certain supply had always come from the West Indies, but now the market for this was destroyed through Ceylon operations (chiefly I fancy through the work and invention in better curing of poor Borron). Mr. Morris paid a high compliment to our *Tropical Agriculturist*, Planting Manuals, and other works, as helping to develop enterprise not only in Ceylon, but all round the world. Sir ARTHUR GORDON came next with a vote of thanks to the lecturer expressed in gratifying terms: he further pleaded that the planters of Ceylon should carefully consider the danger once more of having "all their eggs in one basket," and the advantage rather of at least "two strings to their bow"—that cultivation should be diversified even on tea plantations, and he also advocated further attention in the low country to coconut cultivation. Mr. EPPS came next with information about the different kinds of "Cacao" and "Coca," which was of much interest: he referred to my quotation from Berthelink's book which he had before him, and did not think his *couleur de rose* statements, as to the great age to which cacao trees would live and bear profitably, could be depended on. He said that Trinidad and Ceylon cocoa were each good in their way and were used for different purposes, and he deprecated the criticism of the mode of preparing the former. Mr. BARBER came next with reasons, from his own experience, why planters were not likely to do much in extending rice or palm culture.

In acknowledging the vote of thanks and the kind things said, I referred to Mr. Morris's remarks about "rice," and pointed out that my paper was confined to products exported to Mincing Lane, or I could have noticed other palms (such as areca, kitul, palmyra, etc.) and minor products; that for this reason of a home market even the coconut produce was not in high request, and that in respect of his own and Mr. Epps's criticism I could only quote what Dr. Trimen said in his last report in reference to the frequent inquiries he had from the West Indies about the superiority of Ceylon "cocoa," that he could only put it down to the better and more careful preparation. By the way, had there been time, Mr. A. Ross would have also offered a correction from his own knowledge of some remarks offered about the West Indian mode of preparation.

NOTE BY DR. TRIMEN, DIRECTOR OF THE ROYAL BOTANIC
GARDENS, CEYLON.

I have enjoyed reading your lecture, which gives an excellent review of the present position of our "Planting" industries. I am glad you speak up for Cacao and Liberian Coffee. As to Rubber, I do not expect it ever to become an article for *private* cultivation; and still less can Gutta-Percha be so, as the trees are of little value till 80 years old and then the yield is small.

As to the introduction to Ceylon of some of our leading products. *Coffee* was certainly unknown in Tropical Asia till the Dutch introduced it to Java in 1690; it was brought thence by them to Ceylon, probably about the same year.

I have not my books and notes here to refer to, but I am pretty sure that the following are the known facts as regards *Tea*. Bennett gives

a figure (a good one) of the real Tea plant, which he says was collected near Batticaloa (I think in 1826), but from the text he clearly confused it with our "Matara Tea"—the leaves of the "Ranawara" (*Cassia auriculata*). Still I think true Tea may have been grown in some gardens in Ceylon as it was certainly in the Botanic Gardens at Kalutara before 1824, the date of Moon's Catalogue. This is the earliest date I have met with for it, and I have no reason to suppose it was in Ceylon in Dutch times. Assam Tea was sent from Calcutta as early as 1839, and planted at N. Eliya.

As to *Cacao*, the history is somewhat the same. The first certain record is Moon's Catalogue (1824), and as the plant is not mentioned in a list of useful things introduced in 1804 (given I think in Perceval's History) I put its introduction somewhere between those dates, and am inclined to think we owe it to Moon himself. It may, of course, have been some one else, but the date must be about that above indicated, and therefore after the Dutch period.

APPENDIX III.

A PLANTER'S WORK AND LIFE IN CEYLON.

[The following useful information was prepared by the Planters' Association of Ceylon, and circulated at the late Indian and Colonial Exhibition at South Kensington in 1886.]

TEA IN CEYLON.

In the minds of the British public the name of Ceylon has been chiefly associated with the production of coffee and spices; the latter in poetry, but in poetry only, imparting their fragrance to the very air.

While Ceylon coffee and Ceylon spices are of superior quality, and remain most important articles of trade, it is Ceylon tea that is rapidly becoming the staple product, and the one for which the island will soon be most celebrated.

Seldom or never has an industry made such progress, or a new article of consumption overcome by its intrinsic merit the opposition of vested trade interests, as has Ceylon tea.

In 1873 the exports of tea from Ceylon were 23lb.; in 1885, they have been 4½ million lb.; in 1886 they will be about 10 million lb.; and in the near future 40 million lb. will be exported.

The area under tea in the island is rapidly extending, and already about 120,000 acres have been planted. Over 700 European planters and 150,000 Indian and Sinhalese labourers are engaged in the cultivation. Some of the plantations are but little above sea level, while others run up to an elevation of 6,000 feet. The average altitude of the larger districts is about 4,000 feet above sea level, an elevation at which the climate is pleasant and most healthy. A railway runs up into the hills and a good system of cartroads exists, so that most of the estates are already within a day's journey from Colombo—the capital and shipping port.

At a time when dietetics has almost become a science, when purity and cleanliness in food and beverages are so strongly insisted on, it is strange that greater attention has not been called to the more than doubtful nature of much of that which is consumed as tea.

It has been said that if to be an Englishman is to eat beef, to be an Englishwoman is to drink tea. True it is that the article which in the sixteenth century was a luxury, costing ten guineas a pound and consumed by a hundred people, has in the nineteenth century become a necessity, costing two shillings a pound and consumed by millions.

Did the people of Britain thoroughly understand the difference between

British-grown tea—such as Ceylon's—and that of China or Japan, it is certain that those who could get the pure, clean, machine-prepared leaf which is turned out from the planter's factory, would never touch the far from pure article prepared by the hands and feet of the unwashed Mongolian.

In China and Japan tea is mostly cultivated in small patches by the peasantry, who gather the leaves and prepare the tea in their huts in a very unfastidious manner. The tea, either in a half-manufactured or finished state, is sold to petty dealers, who in turn sell to larger dealers.



COOLIE GIRL PICKING TEA-LEAVES.

The large dealer mixes and manipulates teas, packs and sells them to the European merchants for shipment to England, Australia, or America. The manipulation of tea is an art in which the Chinaman excels, and in many of the inferior kinds the quality is infinitely deteriorated—thus, “the dust of the leaf is mixed with clay and manipulated into the form of the ordinary leaf”—this is with appropriate philological coincidence termed “lie” tea. “Tea leaves which have been already used are again manipulated and rolled into shape and sold as genuine tea.”

The teas of Japan, which are almost entirely consumed by our

American cousins, are frequently and admittedly "faced" with a mixture of Prussian blue and soapstone.

The Ceylon estate cultivation and manufacture is very different, and



THE SINNAPITTIA COFFEE ESTATE, NEAR GAMPOLA.

it may not be uninteresting to give a brief account of how *pure tea* is made.

The tea bushes are planted in lines at regular distances over hundreds of acres of carefully roaded and drained land, which is regularly weeded every month. Once a year the bushes are pruned down to a height of

about two feet; and eight weeks after the pruning the first "flush" of young shoots is ready to be plucked, and during the height of the season the flushes re-occur every ten days. Coolies, having a small basket attached to their girdle, then go round and pluck the bud and a couple of the tender half-developed leaves. At midday, and again in the evening, the leaf is weighed and taken into the factory. The leaf is at once spread very thinly on trays or shelves to wither. The time which the leaf takes to wither—to become soft and pliable without drying up—varies with the weather, but as a rule the leaf gathered one day will be sufficiently withered the following day.

The withered leaf is then placed in the rolling-machine, an ingenious and effective appliance which is driven by water or steam power. The rolling lasts for nearly half-an-hour; at the end of that time the leaf has become a moist mass of twisted and bruised leaves, out of which the expressed juice freely comes, technically called "the roll." The roll is then placed in trays to ferment or oxidise; during this process it changes from a green to a copper colour. The subsequent strength and flavour of the tea depend, to a great extent, upon the fermentation—a chemical process, the success of which is not entirely within the control of the planter, but depends greatly on the weather, and takes a time varying from two to six hours.

The next process is that of firing. The roll is thinly spread on trays, and placed either over charcoal stoves or in large iron drying-machines, and at the end of half-an-hour it is thoroughly crisp and dried, and has become tea. The tea is then sorted or sized, by being passed through sieves of different meshes giving the varieties of broken-pekoe, pekoe, souchong, congou, and dust. The broken-pekoe, which consists chiefly of the opening bud of the leaf, gives the strongest tea, perhaps too strong a tea to be infused by itself; and a mixture of pekoe and souchong makes the most pleasant drinking tea.

The final process is that of weighing and packing. When a sufficient quantity has been manufactured the tea is again slightly fired, to drive off any suspicion of moisture, and packed while warm in lead-lined boxes carefully soldered down to exclude air.

Such is the mode of careful, cleanly preparation in the specially erected factory of the Ceylon planter; and every drinker of genuine Ceylon tea may be certain that it is *absolutely pure*.

Ceylon tea stands unrivalled for its combination of strength and flavour; and the pure tea gives a beverage pleasant and beneficial to those who drink it. One cannot doubt that, were the well-meaning evangelists in the cause of temperance to realise the difference between pleasantly-strong, well-flavoured, stimulating tea and the "wishy-washy" decoction infused from the cheaper China teas, their efforts to substitute "the cup which does not inebriate" for that which does might be made much more successful.

In addition to the other good qualities, Ceylon tea possesses that of being economical; for it is generally admitted that two pounds of Ceylon will go as far as three pounds of China.

The tea you drink should be—

- 1.—Pure.
- 2.—Wholesome.
- 3.—Pleasant.
- 4.—Economical.

And Ceylon tea justly claims pre-eminence on these grounds.

Would-be purchasers of Ceylon tea must be warned that there is

danger (just as there is with everything which has earned a good name



WEIGHING IN GREEN TEA-LEAF ON A TEA ESTATE.

and become popular) of a spurious or admixed article being sold instead of what is genuine.

Ceylon Tea-Estate and other Produce Companies registered in England, showing Arreages, Capital, and Dividends paid, etc., for Years 1890-1891.

NAMES OF COMPANIES.	Acres under various pro-ducts.	Re-serve acce.	Total arceage.	Author-ised Capital.	Capital issued.			Deben-tures.	Dividends paid 1890-1891.		Re-serve.	Year ending.
					Ordinary Shares.	Pre-ference Shares.			Ordi-nary.	Pre-ference.		
Eastern Produce and Estates Co., Ltd. ^a	9,266	7,322	17,764	£23,000	£295,135	£753	195,200 (6 p.c.)	Nil	Nil	5 p.c.	10,000	Dec. 31/90
Oriental Bank Estates Co., Ltd. ^b {Ceylon Maurtius	4,421	6,066	13,090 } 14,465 }	566,700	228,888	204,510	150,000 (4½ p.c.)	5 p.c.	5 p.c.	7 p.c.	...	Mar. 31/91
United Planters of Ceylon Co., Ltd. ^c	5,193	6,987	12,294	250,000	138,050	...	68,950	...	...	...	...	Dec. 31
Ceylon Tea Plantations Co., Ltd. ^d	6,307	2,738	9,138	800,000	143,370	30,000	...	15 p.c.	...	7 p.c.	9,000	Dec. 31/90
Ceylon Land and Produce Co., Ltd. ^e	1,870	1,691	4,522	100,000	21,500	26,450	40,122	10 p.c.	...	6 p.c.	...	June 30/91
Lanka Plantations Co., Ltd.	1,666	1,013	4,097	200,000	150,000	14,200	...	2½ p.c.	...	6 p.c.	...	June 30/91
Madulima Coffee Co., Ltd.	997	1,400	3,458	110,000	70,000	23,750	5,900 (6 p.c.)	Nil	...	8 p.c.	...	Dec. 31/90
New Dimbela Co., Ltd.	1,688	814	3,125	130,000 {	22,030	55,710	8,410	8 p.c.	...	6 p.c.	...	June 30/91
Colombo Commercial Co., Ltd. ^e	1,510	1,763	3,594	200,000	70,000	13,150	17,700	A Shares.	...	...	...	Sept. 30/91
Onyah Coffee Co., Ltd.	1,300	578	2,924	100,000	100,000	...	...	5 p.c.	...	6 p.c.	4,000	July 31/90
Spring Valley Co., Ltd.	768	716	2,356	80,000	80,000	...	...	3 p.c.	...	...	4,012	July 31/90
Hunagaria Tea Co., Ltd.	789	1,436	2,295	30,000	22,728	...	...	Nil	...	...	...	Dec. 31/90
Scottish Trust and Loan Co. of Ceylon, Ltd. ^f	1,137	748	2,458	250,000	45,000	...	32,000	5 p.c.†	...	...	10,000	June 30/91
The Haputala Coffee Co., Ltd. ^g	483	306	1,793	85,000	8,324	57,713	...	Nil	...	3 p.c.	...	June 30/91
The Scottish Ceylon Tea Co., Ltd.	1,559	349	1,915	50,000	41,000	...	...	15 p.c.	...	...	1,000	Dec. 31/90
The Standard Tea Co. of Ceylon, Ltd.	681	748	1,729	50,000	42,000	...	...	...	...	...	...	Dec. 31*
The Ceylon and Oriental Investment Co., Ltd. ^h	470	1,003	1,473	250,000	37,030	...	...	...	...	...	...	Dec. 31*
The Kelani Valley Tea Association, Ltd.	604	339	943	20,000	20,000	...	8,450 (6 p.c.)	5 p.c.	...	...	...	Dec. 31/90
Ceylon Estates Investment Association, Ltd.	571	50	813	60,000	30,000	...	...	7½ p.c.	...	...	...	Mar. 31/91
Rangalla Tea Co. of Ceylon, Ltd. ⁱ	568	626	1,291	22,000	21,000	...	...	...	...	...	...	Dec. 31*
Duckwari Ceylon Tea Co., Ltd.	500	27	1,154	20,000	8,000	12,000	...	...	...	7 p.c.	...	June 30/90
The Blackwood Coffee Co., Ltd.*	390	271	1,011	100,000	52,500	...	8,000	...	...	...	...	Dec. 31.

^a Has Mills in Colombo and general Estate Agency business.

^b This Company is not the owner of the Maurtius property, but is largely interested therein. Has paid ten dividends at rates state 1.

^c Has paid 15 p.c. annually on Ordinary Shares for last four years.

^d Debenture amount includes £11,500 mortgage.

^e Has Mills and Engineering Business in Colombo.

^f Beside being Estate proprietors, hold mortgages over other Tea Estates for £26,848.

^g Arrears on Preference Dividends 7 p.c.

^h Carries on Tea Estate and financial business, in addition to being Estate proprietors.

* New Companies.

† With bonus of 5 p.c.

THE CEYLON TEA INDUSTRY.

ITS POSITION AND PROSPECTS FROM THE PLANTER'S POINT OF VIEW.

To the Editor of "The Financial News."

SIR,—My attention has been called by a friend interested in tea to your recent editorial deliverance on the tea trade, the comments on some points affecting Ceylon tea offered by Messrs. W. J. and Henry Thompson, and the rejoinder of Mr. F. S. Hawes, in which he specially questions the stability of the Ceylon tea-planting industry. It is on this last topic that I should like, with your permission, to occupy some portion of your space.

Though tea had been planted in the hill country of Ceylon about thirty years ago, yet so recently as 1875 the total area cultivated was only about 1,000 acres, and the rush into planting did not commence until after 1880, the area planted exceeding 100,000 acres in 1885, while now I estimate, from the returns compiled by me for the latest "Ceylon Handbook and Directory," that not less than 255,000 acres are covered by the tea plant. In the same way, our tea exports continued small up to 1886, when they reached nearly 8,000,000 lb., the increase being very rapid every year thereafter, so that, in round figures, the annual totals have reached 14,000,000 lb., 24,000,000 lb., 34,500,000 lb., and 46,000,000 lb. respectively; while last year we sent away more than 68,000,000 lb., and this may be exceeded by 10,000,000 lb. to 12,000,000 lb. in the present year. Personally, I have had thirty years' experience as a resident in Ceylon; I have constantly watched its planting industries, and have paid more attention than any one else to its agricultural statistics. The wonder to us all now is that we did not find out twenty or thirty years earlier how admirably adapted Ceylon was to become a great tea-growing country, how much better, for instance, the Ceylon climate and soil are for the growth of tea than coffee, which continued to be our staple for forty years, and how much hardier and more adaptable to varying conditions of altitude and soil the tea plant is than almost any other tropical or sub-tropical plant that can be named. The moist south-western zone of Ceylon, with its comparatively high range of temperature, affords an almost perfect home for the tea plant, with its leaf-yielding crops—a habitat almost as suitable as its original one between Assam and China, and one in which, so far as we in Ceylon can judge, it is likely to continue to grow and flourish, as long as even our several cultivated palms.*

Tea grows with wonderful vigour in Ceylon, from the south-west coast districts up to plantations 6,500 ft. above sea level. As a rule, the higher we go the finer and more delicate are the teas produced, but the less crop per acre; the lower we go the stronger, and perhaps coarser, the product, but the heavier the crop return. There are frequent exceptions to this, as to most generalising rules the heavy crops of fine teas

* Our Sinhalese agriculturists (many of them shrewd, observant men) at an early date in the tea era expressed themselves astonished at the hardness of the tea shrub as compared with the coffee bush—the latter chiefly a surface feeder, while tea sends its roots far down, like "a regular jungle plant," as they called it. Of course, cheaper labour and transport are indispensable conditions to success in the cultivation of tea.

yielded in plantations above 4,000 ft. or 4,500 ft. having of recent years astonished all concerned.

So much I have ventured to put down by way of introduction towards an understanding of the conditions attending our tea-planting enterprise. Now, the cry raised by Mr. Hawes about instability at this time is by no means a new one; it was one of the earliest advanced by Indian planting critics when Ceylon tea began to come into notice. I have had Indian planting visitors in my Colombo office so far back as 1886-87 who, after an inspection of our planting districts, declared, very much in the words now used, that Ceylon planters were over-plucking and forcing their tea bushes, and that they (the visitors) were convinced there was no stability about the enterprise. This reminds me of a Canton merchant who would scarcely allow me to mention Ceylon tea when I visited him in 1884, en route to Japan and America, but who, three years afterwards, wrote apologising, because he had realised that Ceylon tea was to be the great tea of the future, and he felt bound to turn his attention to it more than any other. We had not much to say in reply to our critics, save that our instructors, our "guides, philosophers and friends," in the arts of plucking and pruning tea were experienced Indian planters, and that Ceylon planters, above any in the world, were ready to profit by good advice, example, and experiment. But since that time we have been able to turn the tables on our critics, and to call their attention to facts which may well make them pause. It is, however, not so much the experience of an additional six or seven years—though that may count for a good deal—but we have altogether enough of typical plantation fields in regular cultivation and cropping for nearly twenty-five years to point to as constituting an object lesson from which much may be learned. There is, for instance, the oldest field in Loolecondura plantation, some 20 acres cleared and planted by Mr. Taylor in 1867, and which has been plucked regularly ever since it came into bearing, with the usual intervals for pruning, etc.

Now, I have for some years back applied to Mr. Taylor for an annual report on the condition of the tea in this field, as one of the oldest in Ceylon. In 1888, for instance, Mr. Taylor reported the twenty-year-old bushes to be very vigorous, and in 1891, when I made the latest inquiry, Mr. Taylor wrote to me: "The field is as good as ever, giving about the same crops: it was manured once only with castor cake in the beginning of 1885." I may be told "that one swallow does not make a summer," and that Mr. Taylor is probably more careful in his cultivation and plucking than most Ceylon planters; but though there is, perhaps, no other case in the island so old and so reliable in its information, yet there is abundant evidence to show that there is nothing in the appearance of our tea fields generally, or in the yield of crop—I shall come to quality—to justify doubts as to the stability of the Ceylon tea-planting industry. As to heavy yields of crop, I may give the case of the Mariawatte plantation (of the Ceylon Tea Plantations Company), situated lower down than Loolecondura. Here the original 104 acres were planted in 1879, and the returns of crop in made tea, as recorded by me in the "Planting Directory" from the manager's reports, run as follows:—

					Per acre. lb.		Maunds (about).
1884	Tea 5 years old	...	...	...	1,042	...	13
1885	" 6 "	...	...	...	1,178	...	14½
1886	" 7 "	...	...	...	1,059	...	13
1887	" 8 "	...	...	...	1,126	...	14

						Per acre. lb.		Maunds (about).
1888	Tea	5 years old	...	...	...	1,035	..	13
1889	"	10	...	...	...	1,106	...	13½
1890	"	11	...	...	...	1,347	...	16½
1891	"	12	...	...	...

(Not got figures by me, but fully up to average.)*

In 1891 I was told no manure had been applied to the above tea for two years. This particular field affords an admirable lay of land—comparatively flat for tea; but over the whole plantation of over 400 acres the average crop in 1890 was 757 lb. per acre in bearing. Of course, such returns are far above the average for all the Ceylon plantations; indeed, if, over the whole 255,000 acres now planted, we only get half this return per acre average, it will mean a crop, when all is in bearing, not far short of 100,000,000 lb. One reliable planting report, written at the beginning of this year, described Ceylon plantations as “everywhere looking in good heart.”

But now as to quality. It is quite true that many plantations in their early years send home better teas than they do later on; but I think Mr. Hawes will find, on more careful enquiry and study of the question, that the explanation has nothing to do with “the stability of the industry,” or with the soil, or even the mode of planting. There may be a little allowance made for aroma for the first few crops off virgin soil; but far more is due, in the case of fine teas coming from plantations in their younger years, to the great and deliberate attention which the planter and his staff can give to the comparatively trifling crops of the first few seasons. It is when the rush of “flush” commences from big, healthy, vigorous bushes, and all the resources of the factory, it may be, are taxed, that it is impossible to prepare with the same deliberate care. No doubt in some cases “coarser plucking” also explains a difference; indeed, there are not a few plantations where, in view of lower prices, even for fine teas, it has been found more profitable to give up fine plucking and the very careful preparation of a limited quantity of superior teas in favour of the harvesting and preparation of a larger quantity of more ordinary cheaper teas. The fact accounts for the falling off in the average quantity of certain marks, rather than any deterioration in the tea bushes, the soil, or any other circumstances affecting the stability of the Ceylon tea-planting industry. I may be told by Mr. Hawes and other London tea authorities how much better it would be for the Ceylon planter to aim, above all things, at keeping up the quality of his teas; and, *prima facie*, it may be argued that such a course as taking less leaf off the bush, and so less out of the soil, must be conducive to the permanency of the industry. But London authorities do not know everything about the tea bushes; nor, for that matter, does the Ceylon planter as yet profess to know all. And, among the rest, there is the experience, under certain weather conditions, of the flush becoming so abundant—of the flush running away—that it is only by plucking very freely that the planter is able to keep his bush in proper order, and he is, perhaps, forced by the circumstances of the case to make as much tea in one month as, ordinarily, he would do in two or three months. In this connection it must not be overlooked how greatly our tropical rains in Ceylon, rich as they are in nitrogenous properties

* Since received from Mr. Rutherford:—“1891. In Tea 12 years old gave 1,157 lb. per acre, about 14½ maunds. The whole estate gave an average of 866 lb. per acre. The original 104 acres have given over 1,000 lb. per acre for eight consecutive years. This field is now 13 years old.”

(in ammonia), contribute to the production of leaf crops. But again, let me notice how perplexing sometimes to the practical planter is the advice he gets from London in regard to the advantage of only preparing superior fine teas. This was a doctrine taught free from the metropolis during 1890, and, as a journalist (dreading more particularly production in quantity outstripping consumption), I preached it in season and out of season towards the beginning of that year in Ceylon. I remember, too, how much my opinion was strengthened by the visit of the late lamented chairman (Mr. David Reid) of the Ceylon Tea Plantations Company. His theory then was that the ordinary Ceylon teas (chiefly from the low districts) would henceforth come into competition with the average Indian teas; whereas the finer and high-grown Ceylon teas could always have a profitable market of their own, with scarcely any competition from India and China. How much better and more profitable, then, for the planter to do all he could to turn out fine teas! Such was the advice given, and in many cases acted on, in 1890. But what happened in the London markets? I need only ask you to recall the anomalous condition of affairs during the latter half of 1890 and first half of last year in Mincing-lane to understand the discredit that temporarily overcame the "fine tea" theory. Without much warning, the prices for the contemned common Ceylon teas rose almost to the level of those paid for fine high-grown, and continued so for months; the planter who had taken our advice and perhaps reduced his cropping from a ratio of 500 lb. to 600 lb. to say 300 lb. to 400 lb. an acre, in order to secure fine, delicate teas, found that while he got, perhaps, an increased average, his neighbour, who went on his old course, and gathered the equivalent of crops 30 per cent. to 50 per cent. more per acre, got prices averaging nearly as high, and was, in fact, making far more profits through disregarding the advice of London tea men—(I learned two days ago, in Mincing-lane, of a case where the same quality teas from the same plantation realised nearly double the price, within a few months after the strong demand for common teas set in)—and the consequence was that early in 1891 a large number of Ceylon planters made up their minds that their policy lay in the direction of quantity rather than quality. I merely give this as an illustration of the difficulty of laying down hard-and-fast rules.

I have said above that the Ceylon tea planter does not profess yet to know "all about his tea bush"—what may be the very best mode of cultivation, of harvesting and of manipulation of the leaf. There is no such school in the world for the tropical agriculturist as Ceylon. Our planters vie with each other in observation, experiment, and interchange of ideas. Many of them are practical engineers, some are well read in scientific agriculture, while there are local working engineers giving full attention to the requirements and the improvement of the tea factory. Already in Ceylon much advance has been made on the old Indian system; but there is room, I am convinced, for a great deal of improvement still. The whole question of "manuring" with reference to quantity and quality of leaf has yet to be experimentally dealt with. The best mode and time for "pruning," the style of "plucking" best suited for different altitudes, and, above all, means to ensure more complete withering, the proper degree of time and temperature for drying the leaf, and the due amount of fermentation, will all form, in the course of the next few years, the subjects of careful inquiry and experiments. I know even now of very important experiments being made in these directions. The aid of the analytical chemist as well as of the practical engineer will be freely availed of by the Ceylon planters, and whatever

men in their position can do will be done to ensure further success in turning out good teas with profitable results, and in ensuring the stability of their industry. In this respect, the hardy tea bush, with its deep roots, offers great advantages over the more delicate coffee shrubs. If necessary, it would be possible, in the case of an epidemic of insect or fungus pest on tea, to deal with it in a far more radical way than could ever have been tried with coffee; but there is no need to go into details.

Already, I fear, my letter is too long, although I have said so much in order to indicate grounds for our belief that there is nothing in the tea industry of Ceylon at present, or the mode of cultivation, etc., which justified the statement that it is not likely to be as stable as any other tropical industry. No one can tell, of course, what the next twenty or thirty years may show—even five or ten years are a long spell in tropical experience; but certainly, I see no good reason (if prices keep up within a decent reach of present averages) why Ceylon tea, for ten years to come, at least—or, indeed, for twenty or thirty—should not continue to show as prosperous and stable an industry as at present. Let me, in conclusion, recapitulate briefly some of the special advantages appertaining to tea cultivation in Ceylon:—

(1) Easy access to the planting districts, which are served by railways or roads, or both, affording ready, certain, and economical means of transport to and from the shipping port, whence there is always freight available at moderate rates to London, Australia or America.

(2) A good supply of free and fairly cheap labour, the labourers being among the most docile and steady-working in the world.

(3) The comparatively healthful character of nearly all the island's planting districts, the larger portion of the hill country having one of the finest climates in the world.

(4) A climate and soil admirably adapted to the tea plant, with an abundant rainfall, rich in ammonia, well calculated to develop leaf.

(5) A large body of good artificers, and even skilled artisans, among the Sinhalese and Tamils, ready, not only to do duty in the workshops, but to aid planters in their factories with the machinery and various processes of tea preparation.

(6) A community of planters, many of whom have passed through the fires of adversity, and are ready to do their utmost in devising means of economising expenditure compatible with doing justice to cultivation and preparation, and all keenly alive to the advantage of profiting by every improvement resulting from observation or experiment.

Hitherto, however, nearly every Ceylon tea planter has been kept busy with the formation and furnishing of his plantation, if I may so say. Every season nearly, there has been some additional field to be planted, machinery to be got, or factory extended. Indeed, it is a question if more than a minority of our plantations can even now be said to be thoroughly equipped for work, with requisite withering space in factories, sufficient motive power for rolling and drying, a proper number of machines, and, in wet districts, with means (by fans, etc.) for supplementing the ordinary withering arrangement in continuously wet weather. All this may read as petty technical detail, but what I aim at pointing out is that in a few years, when Ceylon may, perhaps—at 100,000,000 lb. to 120,000,000 lb. (or perhaps 150,000,000) of tea—attain its maximum annual crop, there will be a vastly increased amount of attention and experiment directed to the improvement, in every detail, of the modes of culture, harvesting, and preparation of tea. Even now the process is going on. Perhaps London tea experts will better understand

my position and opinion if I allege, as I do with confidence, that there is not a plantation in Ceylon whose teas have, as supplied to the London market, fallen off in quality of recent years, but which could resume sending teas as good as ever, if only it were made worth the while of the manager and proprietor to do so. It is not a question of tea bush, or soil, or even climate—though an unusually wet season in 1891 increased the quantity of common teas—but one of market and prices. In one well-known case, where an average close on 2s. a lb. used to be got some years ago, the plucking was so kept down that the crop per acre was not equal to one-half what it is now, and the latter, of course, pays the proprietor better at a far lower price, while many planters hold that “free” or, at any rate, “medium” plucking is much better for the health and vigour of the tea bush than fine plucking.

I must apologise for running on at so much length; but I venture to think that information in regard to the great tea-planting industry will be of interest to your City readers, as it should be, indeed, in every British household. For this reason, I should be glad if you would permit me, in a second and briefer letter, to notice certain erroneous ideas which prevail in England about Indian and Ceylon, as contrasted with China, teas. Meantime, I am, sir, yours, etc.,

JOHN FERGUSON,

Of The Ceylon Observer and Tropical Agriculturist.

Royal Colonial Institute,

Northumberland-street, W.C., May 19th, 1892.

THE TEA INDUSTRY.

CEYLON AND INDIAN v. CHINA TEAS FROM THE PLANTER'S POINT OF VIEW.

To the Editor of "The Financial News."

SIR,—Notwithstanding all the information circulated during the past seven years, very erroneous ideas appear to prevail still in certain quarters in England in reference to the quality and merits of Indian, and especially Ceylon, as contrasted with China, teas. There can be no doubt that Sir Andrew Clark's hasty, ill-considered remarks in his address to the London Hospital students in October last have been regarded in some directions as a reason for avoiding British-grown teas, and drinking only those of China. These remarks have been very widely quoted, and specially reprinted by interested parties in circular form, for distribution in the Australasian colonies and America, as well as throughout the United Kingdom. Let me refer to the offending passage. After referring, sensibly enough, to the injury done by allowing tea to stand too long, and then drinking a black infusion of what had been, perhaps, half-an-hour in the pot, Sir Andrew Clark went on to say:—“Tea, to be useful, should be, first of all, black China tea. The Indian tea which is being cultivated has become so powerful in its effects upon the nervous system that a cup of it taken early in the morning, as many people do, so disorders the nervous system that those who take it actually

get into a state of tea intoxication, and it produces a form of nerve disturbance which is most painful to witness. If you want to have, either for yourselves or for your patients, tea which will not injure and which will refresh, get black China tea, putting in the right measure—the old-fashioned teaspoonful for each person, and one for the blessed pot. Then pour on briskly boiling water, and within five minutes you must pour it off again, or it will become wicked instead of good.” Now, in the above, Sir Andrew Clark seems quite unaware of the fact that some of the Indian teas are among the most delicate in the world, while, apparently, he has yet to learn of the medium position between the stronger Indian and the poor China taken up by Ceylon teas as a whole, though in our island (as in India) the higher the altitude above sea level at which tea is cultivated the finer and more delicate the leaf. In this way some of our Ceylon high-grown teas have been shown by analysis to have as low a percentage of tannin as any ever recorded. Indeed, in ignoring Ceylon teas in his October address, Sir Andrew Clark had forgotten the eulogy he himself had passed some time ago when drinking a cup of Ceylon tea, as the most pleasant he had ever tasted.

But of far more importance is it to remind Sir Andrew Clark, and all others concerned, that, dealing with Indian and Ceylon teas as a whole, attention to the quantity used and the time of infusion will obviate any deleterious effects, such as those referred to, just as certainly as in the use of China teas. Sir Andrew is quite right about five minutes being ample for “infusion”; indeed, with strong tea, or for nervously-inclined tea-drinkers, rather less may suffice; but he has yet to learn that “the old-fashioned teaspoonful for each person, and one for the blessed pot,” is too liberal in the case of Indian and Ceylon teas. Ceylon Pekoes, for instance, will generally go twice as far as China Congous, and very seldom need more than two-thirds of the quantity taken of China tea be used in the case of pure Ceylon tea to make an even better infusion. Here, then, may be the secret of Sir Andrew Clark’s implied, if not expressed, condemnation of Indian and Ceylon teas—namely, that he has been making his comparison after using the same quantity of such teas as of China in his infusion. Fortunately, the economy attending the use of the former is becoming better understood and appreciated every year by English housewives.

Next, it would be well if Sir Andrew Clark and other home critics of British-grown teas understood the great difference in the cleanliness attending the preparation of Indian and Ceylon teas, machinery being used extensively in the factories, as contrasted with the manual (and sometimes pedal) system adopted in China. I believe, too, it is a fact that in certain districts “John Chinaman” considers anything good enough for “foreign devils,” and so contrives to redry and manipulate for export tea leaf from which he has already taken an infusion—a mild one, perhaps—for his own use. Adulteration with other leaves and the artificial colouring of certain classes of teas are also practised in China and Japan—more especially in the product shipped to the United States. It is very important that the purity, cleanliness, and good value of British-grown teas should be generally understood. Only a few weeks back an important Liverpool paper (the *Courier*) had an article bewailing the falling off in teas, due, as the writer thought, partly, at least, to the supersession of China by Indian and Ceylon teas in the London market; and yet it is surely admitted by unprejudiced experts that China teas, as a whole, now and in years gone by are, and were, inferior to the pure, strong, yet flavoury British-grown product.

In conclusion, I may, perhaps, be permitted to quote a brief summary

of reasons why English-speaking people everywhere should drink Ceylon tea :—

(1) Because Ceylon tea is pure, and China tea too often adulterated or artificially faced.

(2) Ceylon tea is acknowledged to be about the best the world produces.

(3) It is grown and manufactured by their own countrymen.

(4) The Ceylon tea industry affords employment in increasing volume to thousands of English-speaking workmen in the manufacture of implements, machinery, steam-engines, and other factory requisites, materials for buildings, and packages.

(5) China uses only her own locally-made materials for the production and preparation of her teas, so that the consumption of China teas aids chiefly in the purchase of Indian opium instead of English manufactures.

(6) Machine inventors of all countries are welcome to use their skill in Ceylon, the most progressive of all tropical planting lands.

(7) If they saw the respective modes of preparation for themselves, tea consumers outside Asia who could get the pure, clean, machine-prepared leaf which is sent out from the planter's factory would never touch the article prepared by the hands and feet of the Mongolians.

What is here said of Ceylon is obviously, to a great extent, true of Indian teas. Thanking you for giving me so much of your space in the interests of the British tea-planting industry,—I am, sir, yours, etc.,

JOHN FERGUSON,

Of The Ceylon Observer and Tropical Agriculturist

Royal Colonial Institute, May 20th, 1892.

HINTS FOR A YOUNG, NEWLY-ARRIVED PLANTING ASSISTANT.

BY AN OLD PLANTER.

In Colombo.

MY DEAR BLANK,—Welcome to Ceylon. May your career here be most successful and all you hope for realised !

As much depends on the start you make in life, we may adjourn to the verandah and have a chat in a long arm chair.

What will you have to drink ? You will find Colombo a very thirsty place.

I'll have a lemonade, thank you.

What, nothing stronger ?

No, thanks, I have thoroughly enjoyed the voyage and have tasted nothing stronger, and mean to try and see how I can get on without stimulants.

Boy, bring two lemonades, don't spoil them by putting ice in the tumblers.—Have you been calling on anyone yet ?

No, but I have several letters of introduction, one to Mr. John Ferguson ; he is the Editor of the *Observer*.

I am glad to hear you have a letter to him, he is just the person to

give you hints as to how to get up country and all about everything that concerns Ceylon. You can call on him after you finish your drink. His office is only a short distance from the G. O. H.

Travelling.

I hear you are bound for the hill country. Lucky fellow ! but take care that the coolies sent to meet you to show you the way and carry your box containing a change of clothing keeps within sight ; not that he will steal your box, but by your keeping together until your destination is reached, you have a change of clothing at hand which you may stand greatly in need of, as the weather is, at certain seasons, very treacherous. It may look clear and charming for a ten or fifteen miles' ride or walk when you leave the station ; but before you have gone far it may pour as you have never seen it do in the old country. Even if it does not rain, a change of clothing after your bath and you feel like a new man.

On the Plantation.

You will find everything very strange at first : the estate won't be like what you have pictured to yourself, unless you have seen a photograph of it ; for all estates are not alike, and even a photo does not give one an idea of the grandeur of the rocks and mountains, and the charming effect of the pretty little bungalows and the large factories on the tea estates. Everything will be new, the very air you breathe is different, new faces, language, work, whole surroundings all different from what you expected. If you mean to work, and get on here, you will have to get up early, say about 5.30. A.M., have tea or coffee, and make as good a meal as you can, as you have the heaviest part of the day's work to do before you get breakfast. The first duty after early tea is to take "muster," which may be either near or a little way off from the bungalow ; but is generally taken in the most convenient situation for the coolies being sent to work.

The usual way of taking what is called muster is to have all the coolies standing in a sort of semicircle, double file, according to their gangs. The assistant with pocket check-roll or muster book in hand proceeds to the first gang on his left hand, and glancing along the line of coolies of that gang puts down the number in the gang to that kangani in his muster roll. On to the next lot, and enters them, and so on, till the total number of the gangs have been entered. This done the coolies are again arranged in double file, the able-bodied men taking one place, the best picking women in another, the best half-grown boys by themselves, children and old women with infants fill up the balance. From these you select the material to carry on the various field works of the day. A little experience will teach you whom to select for the particular works. When muster is finished, and all gone off to work, give the coolies five minutes' start of you before you follow.

The first morning after your arrival be ready to accompany your P. D. (as the manager is called) should he be able to escort you to the different works going on, and listen carefully to what he tells you. If you cannot trust your memory, make notes after breakfast in your own room of the conversation so far as you can remember. You will find them useful to you in after life.

When left to yourselves among the coolies, go quietly from one to the other, watching each one how the work is done. In a very short time you will be able to distinguish the good working coolies, and learn by watching them how the work should be done. Certain works such as

plucking and pruning you will, with a little practice and under the guidance of your P. D., soon acquire a practical knowledge of, and be able to teach the careless and ignorant amongst them. To do so, you will feel your own ignorance of the language and be anxious to speak it forthwith. It is wonderful how one can get along with a little Tamil, but to be able to get on well with coolies you must get over the bashful feeling of making mistakes in using Tamil when looking after work. Watch when the kangani or overseer gives an order to a coolie, and note down the words in a small note-book and ask your P. D. or the conductor (if there is one on the estate who knows English) the equivalent in English. Every day note down a few Tamil words and their meaning alongside. Commit to memory the Tamil numbers and the days of the week, and invest in a small book called "Inge Va," to be had at the *Observer* Office—a very useful little work for assisting beginners. If you find a coolie very obstinate or stupid at doing as you want him, don't strike him, but show him as you would a child how to do what you want. Remember that you really don't know his language and you may fail in teaching, being unable to express yourself properly. If he is beyond your power of teaching hand him over to a kangani; he may be more successful, but your own efforts at teaching are frequently attended with more success than the kangani's. Try your best to get the work out of your coolies without having to punish them by giving half name or marking them "sick," as "no name" is called.*

An assistant who looks after his coolies well, very rarely has to mark them sick or even half name, unless under very exceptional circumstances. Work quietly, allow no loud talking amongst your field workers; the only loud tone of voice heard is that of the kangani or conductor, reminding the coolies to do something they are apt to forget, or not to do something he may have just discovered has been done amiss.

Estate Books.

Your duty will be to keep what is called a pocket check-roll for enrolling the names of those at work, and from it daily enter all the names into what is called the large or office check-roll. It is an easy task balancing the labour journal and check-roll immediately after work, but becomes a very difficult one if left for a day or two, and there are other objections to postponing making up the check-roll till "the morrow."

In addition to your labour journal which shows the labour distribution of the day, you ought to keep for your own edification, if not asked for by your P. D., a field journal. The book should be ruled, but you make cross columns for the various fields as they are known by their acreage, and a column for the day's total. Opposite each day and under the respective headings enter the number of pounds of tea leaf plucked (or boxes of coffee cherry gathered) off that field. You will find this very useful information as you go along, and it will fully compensate you for the very little trouble it has cost you. Have also a column for number of coolies employed plucking and see that it agrees with your journal, and one to record the total average number of lb. gathered per coolie per *diem*.

In the same field book a few pages later on have a page ruled almost similarly, for the purpose of recording the month and number of coolies

* In the British Parliament the Speaker's mysterious threat of "naming names" strikes terror to the soul of members. On estates the great punishment is just the reverse; to deprive a coolie of his name in the day's check-roll. No name means no pay.—COMPILERS.

employed pruning each field during that time. You will find this useful for reference, as well as to afford you at a glance information as to what your pruning has cost, and be of some assistance to you in estimating the cost of pruning tea in the future.

Weeding.

It will also be your duty to see that the weeding contractors do their work properly, and let me tell you there is no work on an estate more liable to be scamped than weeding, and generally it is the most expensive. The estate you are going to, we will suppose, is weeded once a month, still it is not clean and the contractors are making very little if any profit off their contracts, so that much of the assistant's time is spent having frequently to visit the different weeding contract gangs. I am quite aware this is often the case, but think the contractors should pay for their own overseer.

Thus if your estate is 300 acres, and weeded by contract at so much per acre per *mensum*, it is an easy matter getting the contractors to agree to a reduction of three or four cents per acre, and you appoint one of themselves on the sum obtained by the reduction to be overseer of all the contracts. His duty will be to visit every contract, daily examine the previous day's work, and make them do it over again if badly done. See that the coolies have the regulation weeding tool, whatever that may be, that each of them has a cooty sack to put the weeds into, and that one or more large sacks are being used for receiving and carrying the weeds from the cooty sacks to the weed depôt, that none are missed, or allowed to lie amongst the tea or in heaps on the roads. The weeds ought to be transferred from the cooty sacks, to the large sack and not thrown on the road in a heap, to be gathered afterwards. At 4 p.m. the weeding overseer reports to you in the presence of the kanganies, and on the work generally, the number employed on the various contracts, which statement you enter in your check-roll.

If you find that with monthly weeding, with the close supervision of an overseer, and your own periodical visits, the estate is still far from clean, then insist on the contractors weeding the same ground three times in two months for the same money as allowed for weeding twice in two months. It is only a matter of a few extra coolies the first month or two; afterwards the work becomes lighter and contractors will reap a profit where formerly they had a loss.

Factory work I'll leave your P. D. to give you the necessary hints; it is so much easier doing so on the spot.

But if I haven't tired you out, I would strongly advise you to carry an umbrella and use it as a protection from the sun; it is more wanted than a waterproof coat is for protecting you from rain. Never go out without a sun hat while the sun is up, no matter whether it is shining or not; even during a cloudy or wet day you are liable to get headache, fever or sunstroke.

Confine your drinking to the bungalow,—and at any rate never drink water from a stream,—and unless you are on one of the most highly favoured estates as regards climate, have the water you drink boiled as well as filtered before using. Don't mix anything strong with your water. It will be quite time enough to do so when the doctor orders you; meantime the squeeze of a lime in water with a little sugar is quite enough when you get in tired and must have something before breakfast. Now, as a rule, is the time for your bath, and a very great luxury the bath in Ceylon is to a new arrival. The big plunge or the spout of cold

water—the very thought of it makes me wish I were young again ! But be careful not to stay in too long ; one can have too much of a good thing even. Enjoy your bath and get into dry clothes as quickly as you can, for by this time I am sure you will be ready for breakfast. Two hours are usually allowed for breakfast, but if you have been unable to spare the time for a bath before breakfast, don't neglect to change your flannels ; they are bound to be damp, and to sit damp in Ceylon in most bungalows means catching a chill, and a chill is frequently the first stage of nearly all the ailments planters are heir to.

After 4 p.m. you should have a cup of tea or coffee (if you can get it), and if very peckish a little bread and butter, but nothing stronger.

Water is also the safest and best beverage to dinner in youth, and should be persisted in unless otherwise ordered by a doctor whose medical advice on all other points you would equally value and act up to.

If cards happen to be introduced after dinner and you are invited to join in the same to make up the set, if money are the stakes, don't be afraid to decline to play for money. Stand firmly by your home training and you will never regret it.

Make your little bungalow as neat and comfortable as your means will permit, having a few pictures to enliven the walls, but only of such a nature as your sister or mother might look on and admire.

Do not forget the friends at home, they are always anxious to hear from you. To write a letter home does not take many minutes after it is commenced, and the postage is now within the means of all, so there ought to be no excuse for omitting to write at least twice a month to those who have cared for you, probably from infancy. If you have not brought a few books with you, consult some of the Colombo price lists ; you have Cave & Co., the Colombo Apothecaries' Co., or for practical instruction the *Observer* Office list containing all sorts of books useful to planters, or your P. D. will be glad to lend some to you if you are careful of and return them. Make it a rule not to keep a book long and return it when read.

However small your income may be, live within it. Pay as you go, or at latest during the following month.

Do not order anything unless you are certain you will be able to pay for it the following month. Credit has been the curse of many a young man in Ceylon. My parting advice to you is "don't get into debt."—Well, good-bye, I must be off—shall be glad to hear from you how you get on. You know my *address*.

FROM ANOTHER OLD PLANTER.

In regard to your advice to young men coming out, you should tell them not to give up any innocent amusement which has occupied their spare time at home. They are all apt to think that, now they are men and have work to do, they must give up drawing, painting, music, entomology, taxidermy—any or every thing of the kind they studied at home—(photography is a common thing now),—but never was a greater mistake, for they should fall back upon that as a relaxation from work and as a means of occupation of mind *at home*, instead of looking for it by going elsewhere. I could give you a hundred instances *pro* and *con*. A fellow who fiddles never will be a very bad man, but if he gives up his violin he goes to the deuce in no time.

WHAT TO WEAR.

FOR DAILY USE IN COLOMBO OR THE LOW COUNTRY OF CEYLON.

(Hints to a friend).

WHITE trousers, made of twilled stout cotton material, are always worn. We use American or Dutch Pepperill unbleached drill, and in a week or two the washermen bleach garments and charge nothing extra for it; so you need only take two or three pairs of white ones, and the others of unbleached are more cheaply made in Colombo by the Friend in Need Society, who will supply material (drill) for less than you could buy it. You need eight pairs. But have *no* buttons sewed on, but stud holes made everywhere, and get bone studs, two sizes, for them.

Sewing in Ceylon is cheap and good, if you provide material and a good pattern.

Two or three flannel shirts are needed in case you go on the hills; if worn in Colombo in wet weather, a *thin* one is preferred. Both coloured and white cotton shirts are worn, but coloured are not any economy, as the strong sun in drying soon takes the colour out, however good they are.

In wet weather *very* thin serge or flannel trousers are comfortable without linings.

An office coat of black alpaca or cashmere (French coating), unlined, is useful unless you use white coats of similar material to trousers; but these had better be made in Ceylon if you bring a set of pearl buttons with shanks and fasteners. These are often made to button up to the neck, and then no waistcoat is worn.

Mind in all garments the turnings-in must be twice as deep (the hems having the first fold as wide as the second) as is usual. Our washermen soon beat out the edges on their stones.

Have *no* buttons in shirts nor in white waistcoats, of which three or four are useful.

Paper collars are useless. We pay for washing so much per week, not by the piece. Calico for every garment is nicer wear than linen. Merino socks are more comfortable than cotton, but both are worn.

Shoes are more worn than boots.

Light or rain-coat very desirable. Umbrella, stout silk or alpaca, dark brown, or black, protects most from the sun. *Not* a light colour.

No gloves or top hat worn. Half-a-dozen *thin* cotton or woollen woven under-vests are needed, being always worn underneath in Colombo. Take one or two warmer for the hills.

You would need a dozen shirts altogether, as one is not worn more than two days. There is little need for false fronts and cuffs.

Take a small supply of buttons, needles, cotton, and darning-cotton for socks, etc., as women can be found to mend.

Take two yards of warm red flannel in case of sudden chill to liver, etc. A flannel belt is desirable buttoned, or better still a woven Jäger or sanitary one. It is a great safeguard against dysentery.

FOR ESTATE WEAR.

Any summer clothing used in England will serve, and in the higher districts even English light winter clothing will come in handy. As there are often weeks of wet weather and the planter is out all day in

it, changing only when he comes in to meals, it is important to have many changes ; therefore do not leave half-worn or faded suits in England. Planters are not fastidious as a rule. Serge is pleasant wear.

Cloth coats (of any kind) are preferred to cotton, as being more protection from a burning sun.

A solar hat is essential.

Flannel shirts are always preferred to cotton ones, for daily wear.

Knitted socks or stockings are a comfort in wet weather.

A waterproof that one can ride in is a convenience ; do not leave your leggings behind. Above all have stout but comfortable boots, two or three changes.

On a new estate the work is very rough climbing over logs and rocks.

Sleep in flannel in the higher districts, at least during the wet season.

In lower districts, such as Kurunegala or Kelani, cotton clothing is preferred to cloth, except in wet weather ; but even there the planter keeps to his flannel shirt.

CINNAMON CULTURE IN CEYLON.

"About 1770 De Koke conceived the happy idea, in opposition to the universal prejudice in favour of wild-growing cinnamon, of attempting the cultivation of the tree in Ceylon. This project was carried out under Governors Falck and Vander Graff with extraordinary success, so that the Dutch were able, independently of the kingdom of Kandy, to furnish about 400,000 pounds of cinnamon annually, thereby supplying the entire European demand. In fact, they completely ruled the trade, and would even burn the cinnamon in Holland lest its unusual abundance should reduce the price."

So determined were the Dutch to retain the monopoly in the produce of cinnamon that the plants were limited to a certain number, and all above that number destroyed, besides which large quantities of cinnamon, after having been prepared for market, were frequently thrown into the sea or burnt. It is recorded that on the 10th June, 1760, an enormous quantity of cinnamon was wantonly destroyed near the Admiralty at Amsterdam. It was "valued at eight millions of livres, and an equal quantity was burnt on the ensuing day. The air was perfumed with this incense ; the essential oils, freed from their confinement, distilled over, mixing in one spicy stream, which flowed at the feet of the spectators, but no person was suffered to collect any of this, nor on pain of heavy punishment to rescue the smallest quantity of the spice from the wasting element."

When Ceylon came into the hands of the English in 1796, the cinnamon trade became a monopoly of the English East India Company, and it was not till 1833 that this monopoly was finally abolished, and the cinnamon trade passed into the hands of merchants and private cultivators.

A very heavy duty to the extent of a third or half its value was imposed upon cinnamon up to within so recent a date as 1853. At the present time by far the largest proportion, as well as the finest quality, is obtained from Ceylon, where extensive plantations exist.

The cinnamon tree, which is very variable in form and size, is known to botanists as *Cinnamomum Zeylanicum*. It is very generally distributed in the Ceylon forests up to an elevation of from 3,000 to 7,000 feet. The best quality bark is obtained from a particular variety, or cultivated form, bearing large, irregular leaves. The barks, however, of all the forms are very similar in appearance, and have the same characteristic odour, so that it is sometimes impossible to distinguish the best trees from appearance alone. It is not uncommon, indeed, for the cinnamon peelers when collecting bark from uncultivated plants to



CUTTING CINNAMON STICKS.

taste a small portion before commencing operations, and to pass over some trees as unfit for their purpose. On the south-west coast of Ceylon, on a strip of country some twelve to fifteen miles broad, between Negombo, Colombo, and Maturo, the best quality of cinnamon is found up to an elevation of 1,500 feet. Sir Emerson Tennent states that the five principal gardens in the above district were each from fifteen to twenty miles in circumference. Owing, however, to the enormous extent of coffee cultivation, up to within the last few years many of the cinnamon gardens have given place to coffee, which has since been so seriously devastated by the *Hemileia vastatrix* that

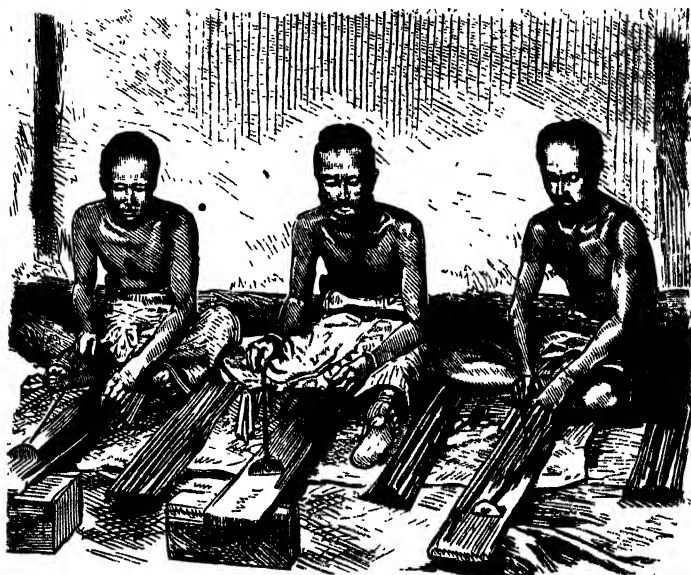


PEELING THE STICKS.



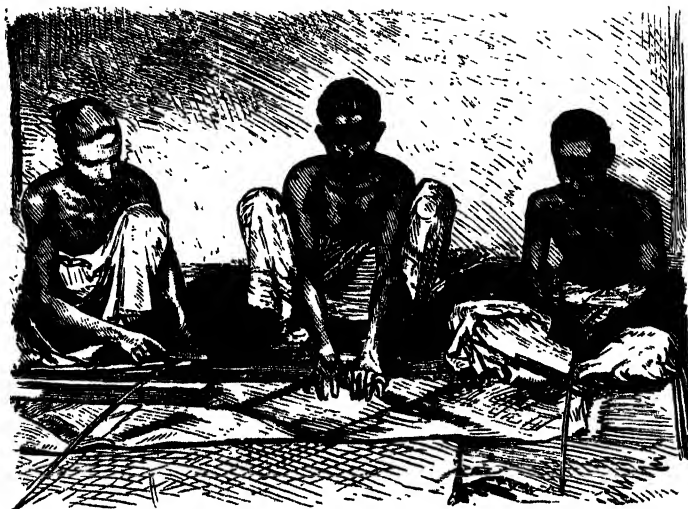
STRETCHING THE CINNAMON BARK.

coffee-planting has in many plantations been itself abandoned. The management of the cinnamon plantations has been described as similar to that of oak coppices in this country. The plants are pruned to prevent their becoming trees, so that several shoots spring up, four or five of which are allowed to grow for a year or two. At this period the greyish green bark begins to change colour, and to assume a brownish tint. As the shoots arrive at the proper state of maturity, at which time they are usually from six to ten feet high, and from half an inch to two inches thick, they are cut down with a long-handled hatchet-shaped knife known as a *catty*, as shown on P. 275. The leaves are then stripped off, and the bark slightly trimmed of irregularities, the trimmings being sold as cinnamon chips. It is next cut through at

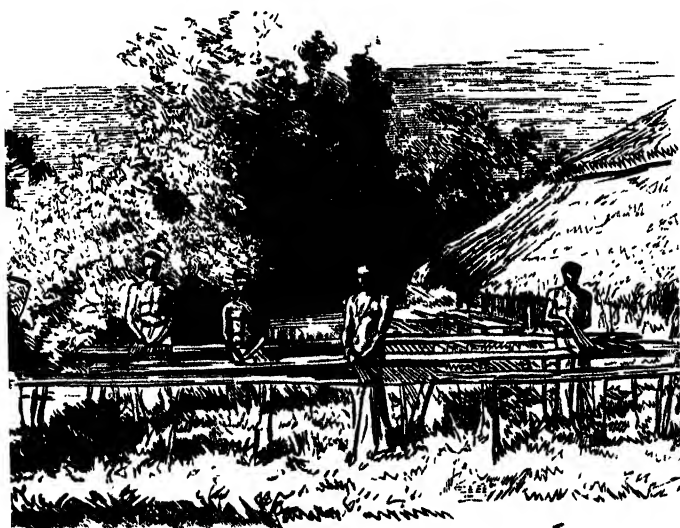


CLEANING THE CINNAMON ON BOARDS.

distances of about a foot, and cut down also longitudinally; it is then very easily removed by inserting a small sickle-shaped knife called a *mama* between the bark and the wood. After removal the pieces of bark are carefully put one into another and tied together in bundles. In this state they are left for twenty-four hours, or longer, a kind of fermentation taking place which helps the removal of the outer bark. To effect this each piece of the bark is separately placed on a stick of wood convex on one side, and by carefully scraping with a knife, the outer and middle layers are removed. At the expiration of a few hours, the smaller quills are placed within the larger, and the bark curling round forms a sort of solid stick, generally about forty inches long. These sticks are kept for a day in the shade to dry, and then placed on wicker trays for final drying in the sun, as shown on Page 278, and when



CUTTING THE CINNAMON INTO LENGTHS.



A CINNAMON DRYING GROUND.



TYING THE CINNAMON IN BUNDLES FOR EXPORTATION.

thoroughly dried are made into bundles, each weighing about thirty pounds (Page 279).

Notwithstanding that the cinnamon plant has been introduced into India, Java, China, Senegal, Brazil, West Indies, and other parts of the world, the bark imported from these places is deficient in aromatic qualities, and Ceylon cinnamon still holds its own as the very best quality brought into the market.

The quantity of cinnamon imported into this country in 1881 amounted to 1,736,415 lb.,* of the value of £121,176. The chief use of cinnamon is as a spice, but it is also largely used in medicine as a cordial and stimulant.

Our engravings have been made from photographs taken by Messrs. W. L. H. Skeen and Co., of Colombo, which have been recently acquired for the Museum of Economic Botany at Kew, and we are indebted to Sir Joseph Hooker for the loan of them.

QUININE *VERSUS* OPIUM.

To the Editor of the "Friend of China."

ROYAL COLONIAL INSTITUTE, NORTHUMBERLAND AVENUE,

October 12th, 1887.

SIR,—I venture to address you on a subject which, though not directly connected with the suppression of the opium trade, has nevertheless in some respects a very considerable bearing on the objects which all members of your Society must have at heart. To make myself clear, I would begin by referring to the relation which exists between the desire for and consumption of opium among any people, and the more or less prevalence of malarial or other fever of a low, depressing type.

In many of the low-lying districts of China, I believe, this is especially the case. My own observation has been confined to a visit paid to the neighbourhood of Canton; but I think sufficient may be gathered from the accounts of travellers and the experience of residents in China to show that the craving for opium in the first instance, in many parts, is due to the prevalence of a low type of fever.

The same thing has been realised for some years back in more than one district in England.

It appears to be indisputable that the consumption of opium, in the form of laudanum especially, has become very large in the Fen districts of Cambridge and Lincolnshire, and along the banks of the Thames, more particularly about Gravesend. These are just the situations where a malarial or depressing type of fever might be supposed to prevail. In the London *Spectator* of July 5th, 1879, it was stated by the editors: "We have reason to believe that in parts of England, at all events, laudanum is much drunk by women instead of alcohol. . . . We are afraid to state the quantity of laudanum which one wholesale chemist informed us he sent annually to his Lincolnshire customers."

This remark elicited a letter to the editors, which appeared in their succeeding issue, and from which I quote as follows:—

"I am a country chemist of the 'lower grade,' one of four (of whom

* In 1891 the import was 1,487,637 lb., the total export from Ceylon being 2,900,000 lb.

I am not the chief) in two contiguous villages, which together have not more than 4,500 inhabitants. I sell, as nearly as I can judge, about two gallons of laudanum per month, solely by retail; besides, say, some 16 or 20 oz. of opium itself. Most of this is sold to women of the poorer class, who must pinch themselves seriously in many ways to be able to purchase this luxury. Most of them are evidently ashamed of their habit of opium-eating or laudanum-taking, as the case may be, but some quite otherwise. Many will consume an ounce of opium every week, and some considerably more. One man I know who will take at a dose twenty grains of muriate of morphia, and this dose, I believe, he has occasionally swallowed twice in one day.

"These are facts. As to the explanation of them, I am hardly prepared to speak of that. The 'crave' (your word, Sir) I believe to be a natural one, at least in these parts. How first induced, if induced at all, I know not. It is apparently partly of a physical, partly of a moral origin. Women of low vitality and poor spirits seem mostly subject to it. Opium is their refuge from the 'dumps.' In fact, as you suppose, it supplies to them the place of alcoholic liquors. May I conclude with a question? Is the trade in this drug an immoral one?"

"I am, Sirs, etc.,

"A LINCOLNSHIRE DRUGGIST."

Now I think it would be found that as respects the Fen districts of Lincolnshire and Cambridge, and the neighbourhood of Gravesend, the craving which has resulted in a large consumption of opium in one form or other has had its origin in local climatic causes, although the practice may have now grown far beyond the necessities of the case. And the same may probably be said of the low-lying marshy districts of China.

My object in dwelling on these circumstances is to call your attention to the important bearing which a well-known and now comparatively cheap drug, namely, *sulphate of quinine* (or even the cheaper and inferior alkaloids extracted from the cinchona bark), should have on the original causes (as I deem them) for this craving for laudanum or opium, and more especially on the influence of quinine in removing the craving for what may become the very injurious and dangerous practice of opium-eating or smoking, or of laudanum-drinking.

My attention was first directed to this point by a certain curious experience related by my friend, Mr. Archibald Colquhoun, in his work "*Across Chrysè*." I have not the book before me as I write, but I think my relation of the facts recorded will be found generally very nearly correct. Mr. Colquhoun found, in passing up the river beyond Canton, on his way across Southern China to Burmah, that at several mandarins' barriers on the river, where a levy on all travellers and especially traders—a regular "squeeze"—was made, that, when offering gifts to the chief official in order to minimise the delay and expense, more store was laid by a few grains of quinine than by his most polished and attractive Birmingham goods. More than once Mr. Colquhoun was asked by the mandarin if he had any cure for the taste of the "black smoke poison" (opium), and on his replying in the negative, the second question would at once be, "Have you any quinine?"—showing that the Chinese, even in those remote inland districts, fully realised the efficacy of quinine in superseding the need for opium and possibly in curing the taste and desire for it.

So much is this known that American missionaries returning from furlough, often bring back packages of quinine pills for the use of their

converts and poor people generally in China, knowing well that nothing is more appreciated or more valuable for securing health. I have said enough, I hope, to show the importance of quinine as a health-giving substitute for, if not remedy and preventive of, the taste for opium. Wherever fever prevails, there can be no better prophylactic and tonic than quinine; and where, unfortunately, the taste for deleterious drugs such as opium and laudanum prevails, it would appear to be very important to treat patients with quinine, or to make known how much superior sulphate of quinine, or even the inferior alkaloids from cinchona bark, are to opium in any form, for alleviating the evil consequences of malaria and fever depression, and for restoring tone and health.

You will now begin to understand, Sir, wherein I would ask the aid of your Society. Only a few years back, it would have been of little use in this way to recommend quinine or cinchona alkaloids to the attention of poor people, its cost being almost prohibitory for use, save in special prescriptions. But the experiment, begun in 1861 by Mr. Clements Markham (under the auspices of the Indian Government), in introducing the cultivation of Cinchona plants from America on the hills of India and Ceylon, has produced a great revolution in the market, increasing the production of bark, especially from Ceylon (which sends to London as much as all the rest of the world (India, Java, and South America), so that the price of Howard's sulphate of quinine, in place of being 10s. to 15s., and sometimes even 18s. per oz., is now down to about 2s. 6d. per oz.* The rapid rise of the trade from Ceylon may be judged from the fact that whereas in 1872 only 11,547 lb. of cinchona bark were exported, now from 13,000,000 to 15,000,000 lb. are sent to Europe every year. In passing, it may be of interest to your Society to recall the fact that if India and its British governing authorities have been blamed sometimes for encouraging the opium trade with China; to them also in great measure will be due the credit of supplying the world (through the experiment begun in 1861) with an abundant and cheap supply of the very best antidote, in a prophylactic and tonic of the highest value to the Chinese, as to all others living in feverish or malarious districts.

But, although the *wholesale* price of this invaluable drug (quinine) has been so greatly reduced, it is much to be feared that, being a drug, its value to the household is little known; while throughout the country generally there is no knowledge nor experience of the cheapness of quinine in retail purchases. It came out in evidence in an English County Court, a few months ago, that a provincial town apothecary charged, in prescriptions, at the rate of a penny a grain for sulphate of quinine—the rate from time immemorial in his experience!—or the equivalent of £2 per ounce, for what could certainly be bought wholesale at less than 3s.!

Again, at Vichy, in Central France, the other day, I found Pelletier's sulphate of quinine, a cheaper article than Howard's, retailing for 30 frs. the oz. (25s.); it had been a short time before 45 frs. (or 1½ frs. per gramme).

If your Society, in the desire of its members to suppress the opium trade—and, I suppose, the undue and dangerous use of the drug in England, as in China—could see its way to make known to the sufferers and to others inclined to copy a bad example, the great value and cheapness of quinine, much good might result. To show that we in

* A large quantity of another good brand was sold in Mincing Lane the other day, at 1s. 4d. per ounce!—J. F.

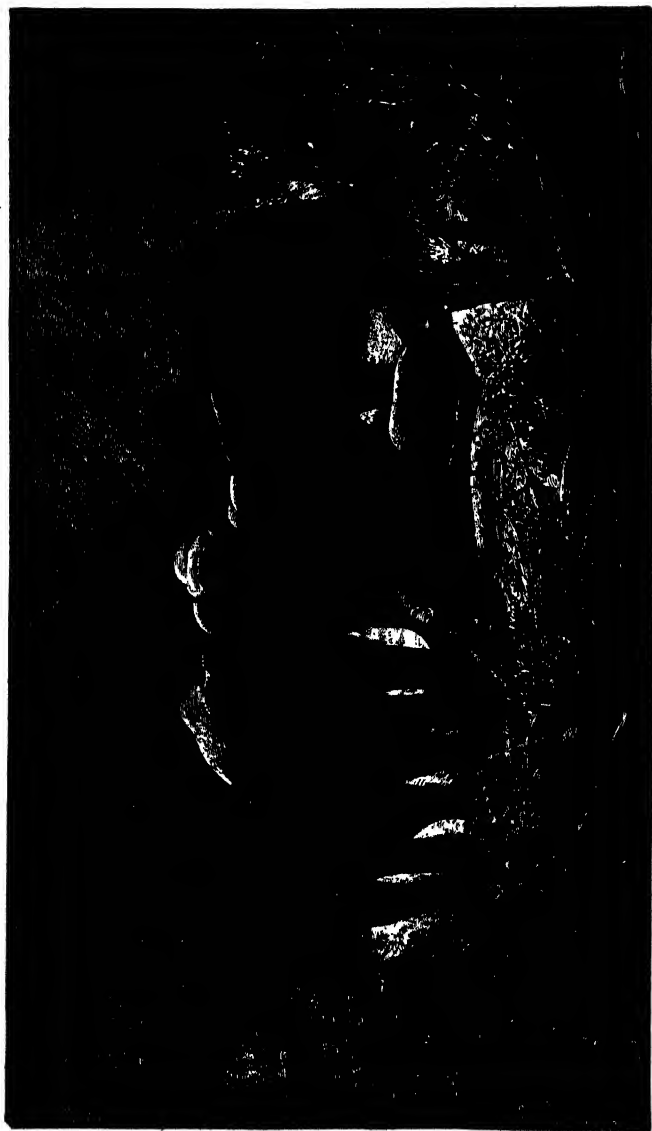
Ceylon have been doing what we can, I enclose some extracts of writings in the *Ceylon Observer* and *Tropical Agriculturist*, calling the attention of the great London drug-houses to the same subject; but, apart from business altogether, it would seem to be a true work of philanthropy to make as widely known as possible the present cheapness of so invaluable a prophylactic and tonic as quinine, especially in districts and countries where the people are addicted to the use of opium.

Apologising for the great length to which I have hurriedly brought this matter under your notice,

I am, Sir, yours truly,

J. FERGUSON,

Of The Ceylon Observer and Tropical Agriculturist.



WILD ELEPHANTS IN THE LABUGAMA KRAAL OF 1882, MOURNING OVER THEIR DEAD COMPANION.

From a Photograph by Messrs. W. L. H. Slater & Co., Colombo.

APPENDIX IV.

SPORT IN CEYLON.

From Major Skinner's "Fifty Years in Ceylon."

IN the years 1827-8-9, whenever elephants made their appearance within thirty or forty miles of Colombo, I received notice of their arrival from the headmen, and when I could get leave, exercised my privilege of taking some of my brother officers out shooting. A good many absurd incidents occurred on these occasions, on one of which Captain Forbes, of the 78th Regiment—he has since taken the name of Forbes-Leslie—and myself started after a herd, which was reported to be about forty miles off. We got up to the elephants, killed, as we thought, one of them, and gave chase to the rest. It was awfully hot weather, and the pursuit turned out unfavourably for us, and the elephants beat us; so we returned to our defunct friend, whom we imagined as dead as "Julius Cæsar," he having resigned to us his tail as a proof of death; but he soon began to show signs of animation, which signs were increased by our repeated discharge of balls into his head. To our no small dismay the animal presently discovered a tree, up which a native had climbed for safety, rushed at it with great fury and brought it to the ground; in his fall from the branches the poor fellow's skull was terribly fractured, in fact, completely opened. I did all I could for him with my small amount of medical skill and appliances; I cut off his hair and bandaged up his head with strips of wax cloth, which we used for the protection of our guns. In the course of the morning he seemed to us all to have passed away; we felt glad the poor fellow's sufferings were over. With my official notions I went through the form of recording the circumstances attending the accident. We passed a unanimous opinion that the deceased had met his death accidentally, having been killed by a wild elephant. This nice little bit of formality had not been long completed when my attention was drawn to the fact that, like the elephant who had injured him, the man we had pronounced to have been "accidentally killed," was showing unmistakable evidence of life, and we had to cancel the proceedings of our impromptu coroner's inquest. I am sorry to be obliged to add that the poor man, as well as the elephant, departed this life the following day.

A few years later I was extending my trigonometrical points in this direction, and overheard one of the attendant headmen giving rather an amusing account of this affair, and especially of myself, who had taken a prominent part in it. There was a large concourse of idlers standing round the instrument, and, as I corrected some of the details of the story, the narrator asked me how I could know anything about it, as there were only two gentlemen present, one of whom was very tall, and the other extremely small. They were very much amused when I proved

to them my identity. I heard from Colonel Forbes-Leslie a few weeks ago, when he reminded me that it was upwards of fifty years since our shooting party just referred to.

On another occasion my old friend, the Hanwell a modeliar, sent to tell me there was a fine herd of wild elephants near Avisavella, about twenty-eight miles off. Accordingly I, with three other friends, Colonel Lindsay, Captain Forbes, and Lieutenant Holyoake—all belonging to the 78th regiment—rode out to the Avisavella Rest House, where we dined, and made our preparations for an early start the next morning. We were all up long before daylight, and divided our forces; Colonel Lindsay and Holyoake holding one pass, while Forbes and I took charge of the other. The herd was a fine large one, and we looked forward to a glorious day's sport. Presently the elephants came on with a splendid charge, when suddenly a man came running to us crying out, "Gentleman plenty sick, Sir!"

Forbes gave the man his brandy flask, and desired him to take it to the "gentleman." We had hardly got rid of this fellow before another came tearing down in a frantic state, saying—

"Gentleman soon will die. Elephant catch him!"

We went at once and found poor Holyoake in a sad plight. He had been charged most viciously, and while making his retreat down hill the elephant caught him, and attempted to "butt" him with his forehead, but in doing so over-reached Holyoake, and thus enabled him to crawl under the body of the elephant and creep out from between his hind legs. No sooner, however, did the enraged animal find he had lost his victim, than he gave chase again, and this time he caught poor Holyoake and took his revenge, breaking his arm and collar bone, and smashing in his ribs on one side. In this state we found him, and had some difficulty in taking him back to Colombo. We managed to carry him to a boat, and conveyed him by the Kalanyganga river, getting him back to his quarters at about 2 A.M., when we had to call in the surgeons to patch him up.

As none of us had tasted any food since very early morning we were pretty well tired and done up; so when we had received the report of the medical officers that no danger was to be apprehended, and that in due course of time our friend would be as well as ever, we separated and went off to our respective quarters, anxious to get to bed.

Forbes went with Colonel Lindsay, as his wife was staying with Mrs. Lindsay during his absence. On entering the dining-room his host poured out a glass of what he imagined to be first-rate curaçoa, which Forbes drank off before he discovered that he had taken a large dose of castor oil. His disgust was too great to be restrained until his host had also partaken of it, and he hurriedly exclaimed, "It's castor oil you have given me!"

Colonel Lindsay was a most absent-minded man, and was often known to go into a house, or committee-room, holding a dripping wet umbrella over his head until relieved of it by some one.

With reference to elephant-shooting, I have heard men who have never come in contact with these animals assert that in their wild state they are never dangerous; but the two cases I have mentioned, and also those of Major Rogers, who was very badly wounded by one, young Waller, a very fine young fellow of my department, who was killed close to the place where Holyoake was so mauled, and the death of Major Haddock of the 97th Regiment, are a few evidences of the expediency of being well prepared for mischief.

Elephants are strange animals. I have seen many little traits of

which I have never read any account in books of natural history. One thing I noticed, that the larger and more powerful they are when first captured and brought to the stables, the quieter and more docile they appear. The largest captured elephant I have ever seen was one in the possession of Mr. Cripps, the Government Agent of the Seven Korles he



MAJOR SKINNER, O.M.G., THE GREAT "ROADMAKER" OF CEYLON,
WHERE HE WORKED FOR FIFTY YEARS.

was a full-sized animal, and yet he fed from our hands the evening he was brought in. He was very docile in his training until the day he was first put in harness, when he could not stand the indignity of being expected to draw a waggon. He dropped in the shafts and died—the natives declared of a broken heart. This was by no means a solitary

instance of casualties from a like cause. I have had several animals in my own department who have died when first put into harness, and who, apparently, had nothing the matter with them before.

Another peculiarity in the elephant it may not be amiss to mention is that I have often witnessed at kraals* very small elephants used for catching the wild ones; and remember one case in particular at the Three Korles, in which Molligolde, the first adigar,† took a prominent part. He rode a very small animal, so small that his head did not reach the height of several of the elephants about to be captured; but he went into the kraal with the utmost confidence, and was very active during the business. Many large elephants were taken without any of them using the least violence towards the little animal ridden by the adigar. This adigar possessed numbers of large tusked elephants, any one of which, one would have supposed, would have been far more formidable and efficient for the work than the puny animal which he rode. I have never seen the mahout‡ of the small elephants at kraals ill-used or in the smallest danger, however violent the wild ones might be.

A scene I witnessed of a herd of elephants bathing, while I was surveying in the central forest, is described in Sir J. Emerson Tennent's book, "The Wild Elephant." He writes:—

The following narrative of an adventure in the great central forest toward the north of the island, communicated to me by Major Skinner, who was engaged for some time in surveying and opening roads through the thickly-wooded districts there, will serve better than any abstract description to convey an idea of the conduct of a herd on such occasions:—

"The case you refer to struck me as exhibiting something more than ordinary brute instinct, and approached nearer reasoning powers than any other instance I can now remember. I cannot do justice to the scene, although it appeared to me at the time to be so remarkable that it left a deep impression in my mind.

"In the height of the dry season in Neucera-Kalawa, you know, the streams are all dried up, and the tanks nearly so. All animals are then sorely pressed for water, and they congregate in the vicinity of those tanks in which there may remain ever so little of the precious element.

"During one of these seasons I was encamped on the bund or embankment of a very small tank, the water in which was so dried that its surface could not have exceeded an area of 500 square yards. It was the only pond within many miles, and I knew that of necessity a very large herd of elephants, which had been in the neighbourhood all day, must resort to it at night.

"On the lower side of the tank, and in a line with the embankment, was a thick forest, in which the elephants sheltered themselves during the day. On the upper side and all around the tank there was a considerable margin of open ground. It was one of those beautiful bright, clear, moonlight nights, when objects could be seen almost as distinctly as by day, and I determined to avail myself of the opportunity to observe the movements of the herd, which had already manifested some uneasiness at our presence. The locality was very favourable for my purpose, and an enormous tree projecting over the tank afforded me a secure lodgment in its branches. Having ordered the fires of my camp to be

* Kraal, a strong enclosure, in the heart of the forest, formed of trunks of trees, for the capture of wild elephants.

† Adigar, Kandyan chief.

‡ Mahout, elephant-driver.

extinguished at an early hour, and all my followers to retire to rest, I took up my post of observation on the overhanging bough; but I had to remain for upwards of two hours before anything was to be seen or heard of the elephants, although I knew they were within 500 yards of me. At length, about the distance of 300 yards from the water, an unusually large elephant issued from the dense cover, and advanced cautiously across the open ground to within 100 yards of the tank, where he stood perfectly motionless. So quiet had the elephants become (although they had been roaring and breaking the jungle throughout the day and evening), that not a movement was now to be heard. The huge vedette remained in his position, still as a rock, for a few minutes, and then made three successive stealthy advances of several yards (halting for some minutes between each, with ears bent forward to catch the slightest sound), and in this way he moved slowly up to the water's edge. Still he did not venture to quench his thirst, for though his fore feet were partially in the tank and his vast body was reflected clearly in the water, he remained for some minutes listening in perfect stillness. Not a motion could be perceived in himself or his shadow. He returned cautiously and slowly to the position he had at first taken up on emerging from the forest. Here in a little while he was joined by five others, with which he again proceeded as cautiously, but less slowly than before, to within a few yards of the tank, and then posted his patrols. He then re-entered the forest and collected around him the whole herd, which must have amounted to between 80 and 100 individuals—led them across the open ground with the most extraordinary composure and quietness, till he joined the advanced guard, when he left them for a moment and repeated his former reconnaissance at the edge of the tank. After which, having apparently satisfied himself that all was safe, he returned and obviously gave the order to advance, for in a moment the whole herd rushed into the water with a degree of unreserved confidence, so opposite to the caution and timidity which had marked their previous movements, that nothing will ever persuade me that there was not rational and preconcerted co-operation throughout the whole party, and a degree of responsible authority exercised by the patriarch leader.

"When the poor animals had gained possession of the tank (the leader being the last to enter), they seemed to abandon themselves to enjoyment without restraint or apprehension of danger. Such a mass of animal life I had never before seen huddled together in so narrow a space. It seemed to me as though they would have nearly drunk the tank dry. I watched them with great interest until they had satisfied themselves as well in bathing as in drinking, when I tried how small a noise would apprise them of the proximity of unwelcome neighbours. I had but to break a little twig, and the solid mass instantly took to flight like a herd of frightened deer, each of the smaller calves being apparently shouldered and carried along between two of the older ones."*

Although on the garrison staff of Colombo, where the duties were carried on with the utmost punctiliousness, I was often employed by Sir Edward Barnes in surveying and tracing new roads; my garrison duties being at these times provided for. In 1828 I traced the Nuwara Eliya road from Bangbodde to Gampola, having previously laid down a line from Colombo to Chilau and Putlam.

I have seen controversies in newspapers on the subject of the curing

* "The Wild Elephant," p. 51.

of the bites of poisonous snakes, some medical officers stating that it was impossible to do so. My own experience convinces me to the contrary. In tracing the Nuwara Eliya road above mentioned, near to Pooceellawa, we were at work, the clearing party in advance opening the jungle, when a cry was heard that a pioneer had been bitten by a *tipcolonga*, the most venomous snake known in Ceylon, said to be much more so than the cobra de capello. I was at my instrument in the rear when the man was brought to me. What was I to do with him? In half an hour, at the most, we all supposed he would succumb to the poison; but listlessly to resign ourselves to inaction seemed too hard-hearted. My powder-flask contained the whole extent of my field *materia medica*. How was it to be applied? I laid the man down, and with my penknife deeply scored the bitten arm. I then emptied a charge of gunpowder over the wound, and applied a match to it. I repeated this several—it may have been five or six—times, and sent the man away to the camp, never expecting to see him alive again. After our day's work was completed I returned to my wigwam, and, on going to look up the invalid, to my surprise and immense delight I found him alive and moving about. In two days more he was as effective as any of my party.

It was curious that the day this man returned to work another fellow was bitten in the foot by a splendid specimen of the same description of snake, which was killed and brought to me with the disabled man. This seemed intended to be a confirmation of the previous experiment, which I followed out exactly, but with considerably greater confidence. Neither of the men suffered pain from the surgical treatment, the parts operated upon having been numbed by the poison of the snakes. In this second case, the man left me for his camp in better spirits than the first-named, and he was at work with the rest of the men the following morning.

I was too much engaged with my work to take much notice of this at the time, but I mentioned it in subsequent discussions on the subject. Sir Robert Wilmot Horton, who was then Governor of Ceylon, thought the information so valuable to the public that he induced me to publish an account of it in a local paper. I have, since my retirement from Ceylon, sent an account of these facts to the London *Times* in reference to a correspondence in its columns on the subject, with the object of refuting the assertion of some Indian medical officers that there was no known cure for the bite of venomous snakes.*

While in the Wilderness of the Peak, I had some few adventures with elephants and other animals, but my faithful companion, a liver-coloured spaniel called "Grog," was a great protection. Before the exquisite scenery of Ceylon was destroyed by the coffee-planter's axe, the forests abounded with animals. The elephants in the wilderness were so numerous that their tracks greatly facilitated my work; they were so judiciously selected and so well trodden. The top of every ridge had

* Extract from Sir J. Emerson Tennent's book, vol. i., p. 193. "Major Skinner, writing to me, mentions the still more remarkable case of the domestication of the cobra de capello in Ceylon. 'Did you ever hear,' he says, 'of tame cobras being kept and domesticated about a house, going in and out at pleasure, and in common with the rest of the inmates? In one family, near Negombo, cobras are kept as protectors, in the place of dogs, by a wealthy man who has always large sums of money in his house. But this is not a solitary case of the kind. I heard of it only the other day, but from undoubtedly good authority. The snakes glide about the house, a terror to thieves, but never attempting to harm the inmates.'"

its broad road, along which one could drive a carriage; from range to range one was always sure to find a cross road, which invariably led to the easiest crossing of the river in the valley. Without my dog I must always have carried a gun for my defence, but with him I felt perfectly safe. Elephants have an extraordinary aversion to dogs, and would always make a rapid retreat from "Grog," who had a special note for each description of game. I could always tell whether he was in chase of an elephant, an elk, a wild boar, a deer, a cheetah, a wild buffalo, or jungle fowl. He would sometimes go so far in these hunts of his that his "tongue" died away until I could no longer distinguish it; and that in the stillness of the forest, where the ticking of one's watch was a disturbing noise! His range must have been a pretty wide one. At first I used to make myself very unhappy about his return; but in a short time I ceased to wait for him, finding that he always came back to me.

On one occasion, during this season's work, I spied from the summit of Adam's Peak a little open spot on the top of the ridge, which formed the southern segment of the zone range, and decided to go to it. I had sent off two intelligent men, with a week's provisions, to prepare a station for observations. I was detained longer at the Peak than I expected, waiting for clear weather—quite long enough to admit of the return of my men, about whom I began to get uneasy. At length I decided to leave, and instead of halting, as I usually did, at 10 o'clock, to admit of the men getting their breakfast, I pushed on through the forest until 3 o'clock, when we stopped at a little rivulet, and cooking commenced. I strolled away up the bed of the stream for a mile or so, a most unusual thing for me to do, inasmuch as my necessary work afforded me quite sufficient exercise without indulging in amateur walks. When away from the noise of the camp the silence of the forest was almost oppressive, and, being at an altitude of about 6,500 feet, the rarefied state of the atmosphere contributed to this stillness.

I fancied I heard human voices in the far distance, so I climbed into a tree and gave my loudest Kandyan cry, which sometimes can be heard at an enormous distance; it was recognised and answered, and in half an hour I succeeded in attracting the men to me. These proved to be my own people, who had been wandering about for many days; they could give no account of themselves, beyond the fact that they had marched the whole of each day since they had left us, but had no conception how far they had been, or where they were when I found them. I conclude they had been walking, as men generally do when lost in a wood, continually in a circle. They had consumed all the provisions they had taken with them, and I could not help feeling that my thus finding these poor fellows was a merciful interposition of Providence, for they must very soon have perished from sheer exhaustion had we not thus, apparently by accident, fallen in with them.

It caused great joy in the camp when I returned with our two lost comrades. The men with me were impressed with the idea that I knew exactly where to find the others when I started from the Peak in the morning, and that I left the bivouac, when we halted, to call them. It is needless to say I had no idea whatever where the men were, nor had I the smallest hope of finding them in such a sea of forest as that which stretched out before me from the Peak.

After breakfast we prosecuted our march, which, in two days and a half, brought us to the point, on the southern segment of the zone, which I wished to reach. I took some credit to myself for having cut my way through so many miles of dark forest, over so many ranges of hills and valleys, and hitting upon the little patch of open grass land.

We reached it just after a heavy thunderstorm, which had driven all the game out of the dripping forest to graze on this open space. I counted thirteen pairs of elk on the plain—the delicate figures of the does contrasting admirably with the huge proportions of the bucks. It was tantalising to see such a profusion of fine game, while I had not a morsel of animal food to eat.

The following morning, anxious to ascend a height in time to avail myself of the clear atmosphere of sunrise for my observations, I started off by myself through the jungle, leaving orders for the men, with the surveying instruments, to follow my track by the notches which I cut in the bark of the trees. On leaving the plain I struck into a fine wide game track, which lay in my direction, and had gone perhaps half a mile from the camp, when I was startled by a slight rustling in the nilloo jungle to my right, and in another instant by the spring of a magnificent leopard, which, bounding fully eight feet over the lower brushwood, lighted within eighteen inches of the spot whereon I stood, and lay in a crouching position with his glaring eyes steadily fixed on me.

The predicament was not a pleasant one. The animal had heard me approaching, and had I been an elk, as he imagined, he would have lighted on my neck. I cannot tell how long we remained in our relative positions, but during the time we stared at each other I felt no fear.

I remembered having heard that no animal could bear the steady gaze of the human eye, and I fixed mine on his with all the intensity I could command. Had I turned or retreated, one blow from his fore-leg would have finished me, for leopards are known to kill a buffalo or an elk with one blow, and I had no weapon of defence. He turned, however, and cantered down the straight broad game track, and then I felt quite sick and faint on realising the danger from which I had escaped. Fortunately my dog was in the rear, or he would have furnished a good breakfast to my cheetah friend. A gun or pistol would have been very acceptable at that moment. I had often seen these animals in their wild state, but never before had met with so fine a specimen.

SHOOTING TRIPS IN CEYLON.*

GOOD CENTRES FOR SPORT, AND HOW TO REACH THEM FROM COLOMBO.

NO. 1.—THE PARK COUNTRY AND BATTICALOA TANKS:—*Game*: elephants, deer, cheetahs, bears, pigs, teal, snipe, peafowl, etc., etc. To Nanu-oya by rail; to Badulla, hired carriage, 40 miles; to Bibile, hired carriage, 37 miles; to Nilgala, good bridle road, 15 miles. This is a good centre for the Park country. To Ambari Tank, 31 miles.

[Excellent country for all the above game, Erikamam, Devilane, and other large tanks in the vicinity.]

NO. 2.—THE HORTON PLAINS:—*Game*: elk, deer, elephants, spur fowl, etc., etc. To Nanu-oya by rail; to the Horton Plains, turning off at Blackpool two miles from the Nanu-oya station on the road to Nuwara Eliya, 18 miles.

* The best available book on Sport is still Sir Samuel Baker's "Rifle and Hound in Ceylon," though published nearly thirty years ago: a new edition was published a few years ago.

No. 3.—TRINCOMALEE DISTRICT :—*Game* : elephants, bears, cheetahs, deer, teal, snipe, etc., etc. To Trincomalee, by steamer, or by road through Kandy and Matale, rail to Matale, thence by road to Trincomalee, to Kottiar by boat, Kottiar to Toppur (Allai-Tank), 7 miles. Good centre for sport of all sorts. Kanthalai Tank, 24 miles from Trincomalee on Kandy road, good centre for sport.

No. 4.—PUTTALAM DISTRICT :—*Game* : elephants, bears, cheetahs, deer, partridge, etc., etc. To Puttalam by canal or road, 84 miles. Puttalam to Pomparipo by lake or road, 25 miles. Good centre for sport. Pomparipo to Marichikaddi, 18 miles bridle road. Excellent country for game of all sorts.

No. 5.—HAMBANTOTA DISTRICT :—To Kalutara by rail ; coach to Galle and Matara ; thence a hired trap to Hambantota. By steamer to Galle and Hambantota, and cart to Yalé.

No. 6.—MINNERY AND POLONARUWA :—To Matale by rail. Matale to Habaranne by road, 44 miles, good carriage road. Habaranne to Minnery, bridle road, 15 miles ; Minnery to Topari (Polonaruwa) 12 miles.

THE ELEPHANT KRAAL OF 1882.

A DESCRIPTION OF THE ELEPHANT KRAAL HELD AT LABUGAMA (CEYLON) FOR THE ENTERTAINMENT OF THE PRINCES ALBERT VICTOR AND GEORGE OF WALES IN 1882.

(From an account by Mr. J. FERGUSON in the *Ceylon Observer*).

AT THE KRAAL.

ARRIVAL OF THE PRINCES.

KRAALTOWN, MONDAY EVENING, *January 30th, 1882.*

THE Princes arrived at the Kraal at 5 p.m. Prince George was mounted on a spirited steed and cleared the stream which runs between the official and unofficial portions of Kraaltown in magnificent style, showing that he knows how to ride. Large crowds of planters and others cheered him vociferously. Prince Albert Victor arrived on foot, walking with his Excellency the Governor alongside of Lady Longden, who was carried in a chair. There are two herds of elephants within a mile of the kraal, seven in one herd and fifteen in the other. A successful drive is expected early to-morrow morning.

THE ELEPHANTS INDISPOSED TO CARRY OUT THE OFFICIAL PROGRAMME.

TUESDAY FORENOON, *January 31st, 1882.*

The little programme sketched out by the Government Agent, and which the energetic Dawson hoped to put into execution, ran somewhat as follows :—The driving from the outer into the inner beat to commence last night, to be followed this morning by the drive into the kraal, which, it was hoped, would be effected before noon ; the noosing and tying-up to be at once begun and continued on Wednesday. This would have enabled the princes to see all the operations connected with a kraal and to start back so as to reach Colombo in good time on Wednesday.

But, so far, we have only an illustration of the well-worn aphorism that—

“The best-laid plans of mice and men
Gang aft agley”;

and we all know how often, especially in the case of elephants, are the plans of men at fault. An old chief last evening gave me the opinion, based on his experience of a good many kraals, that while a herd of elephants were difficult to compass and drive from their native jungle in the first instance, once start them and get the beat fairly established, and by the time they come within driving distance of the kraal they are



TAME ELEPHANTS AND VISITORS TO KRAAL.

all fairly cowed and very easy of management. No doubt, comparatively, this is the case; but in the history of kraals we have too many instances of successful charges and escapes to feel that the final drive is such an easy matter as the old chief would have us believe. Last night's experience is no exception. The herd that it was proposed first to capture, after being driven into the inner beat, broke through into the wider range, and the evening's labour went for nothing. No doubt the wet evening—rain extinguishing fire and torches—had a good deal to do with the breach effected. Of nothing is the elephant so much afraid as of fire, and with nothing will a Kandyan approach a wild elephant so readily. You will remember Major Skinner's experience on the Anurád-

hapura road as an illustration. How he found the road to his camp wilfully, if not deliberately (and of malice aforethought), blocked up one evening by a herd of elephants which had been prowling in the neighbourhood; how all the efforts of himself and his men to clear the road of the intruders proved unavailing—the leader, an old tusker, charging furiously when any attempt was made at dislodgment; and how this went on for some hours until finally a Kandyan arrived with a huge torch, with which he marched right up to the tusker, who stood his ground until the fire almost touched his trunk, and then turned tail and fled with all his belongings. In the hands of a man of Mr. Saunders's nerve, no doubt an umbrella alternately opened and shut would prove as effectual as a torch, and very probably the Government Agent found occasion to use it last night, for he and Mr. Dawson are reported to have spent most of the night with the beaters.

Very early astir this morning, probably the first from the official encampment, was Captain Foot (of H.M.S. *Ruby*), and a long walk round the kraal and on along the line of beaters failed to afford a sight of waving forest tree-tops, or the sound of crashing through "batali" (small bambu), much less the sight of an elephant. The hope now is that one herd may be driven in this afternoon; but there are doubts about it, and the headmen are more than usually susceptible to the presence of strangers, insisting that their beaters should not be visited, and that no bugle should be sounded for the benefit of "Kraaltown" until the barrier-gate shall be closed and the herd secured. There is as usual, too, some little jealousy among the chiefs, the one insisting on his herd being first disposed of and by no means mingled with the others.

Meantime the princes are enjoying themselves under "the merrie greenwood." Their quarters have been most delightfully chosen—for situation beautiful exceedingly—and much care and taste have been displayed in fitting them up. A "crow's-nest" for four has been established at a good point for a sight of the drive-in, while the principal grand stand is, as usual, erected partly inside the kraal to secure a good sight of the final and really interesting operations.

THE ELEPHANTS STILL OBSTINATE—A VISIT TO THE BEATERS'
LINES—A FALSE ALARM—THE CHIEF EKNEĪGODA.

TUESDAY EVENING.

This has been a day of disappointment for all concerned. The drive-in, which was expected to take place last night, was considered certain for this morning, and in hurrying up from a distance of ten miles (where I had taken up my quarters last night) I feared the risk of missing an exciting portion of the proceedings, but was consoled to find everybody still waiting for the elephants. The afternoon was now considered certain for the drive, and in preparation thousands of natives wended their way kraalwards, from which, however, they were kept off at a respectable distance.

I started off to find the outer line of beaters, and at about two miles from Kraaltown I came upon their small jungle huts, or rather nests and camp-fires. Very picturesque was the scene and wonderful the interest of the people in their work, from the old grey-headed Kandyan sire with his flowing white beard, who had probably passed through more kraals than he could recall, to the young stripling by his side who was on the "corral" beat for the first time. From the far-distant jungle came the

signal of their chief, Ekneligoda, or his henchman, and immediately the cry was taken up,

"Hari—hari—hari—hari,
Hari—hari—ho-ho!"

winding up with a prolonged cheer. Passing from the bridle-road, the outer cordon line led through the small bambu jungle up hill and down dale; camp-fires, huts, and beaters with their long forks were passed, or here and there an old musket, and again at regular intervals a crow's-nest with an agile, keen-eyed watchman swung up in a tree. Suddenly a wild "halloo!" is raised by the Sinhalese on the river bank; there is crashing of jungle, firing of guns, and flinging of stones; two or three indefatigable appuhamis literally throw themselves into the stream across which the cordon line now runs, to pick up rocks and fling them into the jungle. The elephants are surely coming, and right down upon us in the river, is the first thought. Three beaters at our side look out for trees, and the thought of shelter becomes a leading consideration. Suddenly the assistant agent, Mr. Dawson, accompanied by the indefatigable Captain Foot and a few other officers, break from the cordon line into the river-bed. Their presence has a wonderful effect; the beaters redouble their furious attack on the supposed advancing "aliyas," shouts and yells, shots and shells in the form of pieces of rock, crashing and trampling, form a proper accompaniment, and it seems more than ever needful to look out for danger. As a Colombo wallah I could not help thinking discretion the better part of valour, and my friends looked, if they did not speak it—

"He who ascends into a tree
May next day climb again with me;
But he by elephant that's gored
May see at once that he is floor'd."

But, before we moved a step, the clamour and shindy subsided as suddenly as it was commenced, and it did not require the "knowing" look of a friend up to "the ways that are dark" of the beater folk to see that all was got up as a "plant" (excuse slang) in honour of the visitors, to afford them a little sensation for their jungle trip. "The elephants are upon you," they said, in order to see how we should stand the test or show a clean pair of heels. But fortunately we stood it all, while we followed on in search of the elephants.

I was anxious to see the old chief, Ekneligoda, who at the head of 500 men directed this drive of fifteen elephants—his people having been out for nearly a month, while he has been half that period living and lodging as best he can in the jungle. "Here he comes," cries my companion, who knows the old man well: a little, dark, skinny old man, bearded like the wandura, with an ordinary comboy which he is holding up as he walks barefoot through jungle and water—the inevitable dilapidated billy-cock hat setting off a figure which a stranger would at once say belonged to a poor old Kandyan of no consequence. But a glance at his face revealed power and authority, set off by a keen eye and aquiline nose—a man, of few words, yet his English is good. We met him later on coming back from one of his beats, when he frankly assured us he did not think we could see the elephants, penetrate and push on as we might. He complained, not loudly, but expressively, of the difficult task set to him: more troublesome elephants had probably never come under his care.

PARTIAL SUCCESS : SEVEN ELEPHANTS DRIVEN IN, BUT THE ATTEMPT TO NOOSE THEM UNSUCCESSFUL—ONE SHOT, AND THE TAIL PRESENTED TO PRINCE ALBERT VICTOR—A BEATER KILLED AND OTHERS WOUNDED—DEPARTURE OF THE GOVERNOR AND THE PRINCES.

WEDNESDAY EVENING, *February 1st, 1882.*

Ekneligoda has his headquarters on the north side of the Peak in the Yatiyantota district, as his relative and superior, Iddamalgoda, holds sway over the richer and more popular south. He is a man of few words, but when I met him the second time in the bed of the expansive rocky ela, which feeds the Maha-oya, the chief, who looked disconcerted after his interview with his civilian superior, threw out his hands in the expressive Oriental fashion and deprecated this English plan of fighting against time and nature, hurrying up the elephants, *nolens volens*, whether inclined to go on or not. "Now," said the chief, "the Sinhalese way is to wait on the elephants; don't allow them to go back; wait until they go, or only at proper times help them to go forward." In the light of last night's and to-day's experiences there is much wisdom in the old chief's remark.

Tuesday passed, and no elephants approached, but the beaters had begun to work in earnest, the position of the herd had been noted by the waving of the jungle, and the chief was very sanguine of passing into the kraal valley and probably driving his herd in during the night. With this anticipation the princely and viceregal party, as well as Kraaltown, had to be content for Tuesday evening.

The princes were for part of this day entertained with the performances of the tame elephants, and they had several walks to the "crow's-nest" in front of the kraal.

WEDNESDAY'S EXPERIENCES.

Day broke, and in the grey morning mist, from 5 to 7 a.m. (and a few hours afterwards), the denizens of Kraaltown might be seen climbing the hillside, and passing on to the kraal entrance in the hope of all being ready for business at last, but "No elephants; not likely to be any kraal," was all that one could learn. Later on, however, came better news, and we waited patiently for hours the approach of elephants which, judging by the nearness and loudness of the cries of the beaters, might be expected at any moment, from 9 a.m. onwards, to burst from their final fastness along the drive into the kraal.

CAPTURE OF IDDAMALGODA'S HERD OF ELEPHANTS.

WEDNESDAY NIGHT.

About breakfast-time came the news that the two herds of from seventeen to twenty elephants were to be kraaled simultaneously. This was received as a welcome relief by the weary bystanders. Very patiently, though with eager expectation, did we all wait for the sudden rustling of the jungle and the burst inwards, which would afford ocular demonstration of a herd being kraaled. But hour after hour sped away, and though numerous were the alarms, no approach to the entrance followed. It was a case of

"How often we Prince Rupert kill'd,
And bravely won the day,—
The wicked Cavaliers do read
The clean contrary way."

At one time the tame elephants were ordered down into the jungle to charge the wild herd upwards if possible, but the attempt failed: the work was one in which the tame ones had no practice, and the "cow" in the herd, already nearly driven desperate about her calf, threatened to undo all the labour of many weeks, if any weak point were left exposed. Fiercely, and again and again, did this gallant brute and faithful mother charge the beaters; she refused to be driven back, and after injuring, directly or indirectly, several of the beaters, she at last killed her man, and it was resolved she must perish. Mr. James Munro was requested to punish the offender, not by killing but by wounding her, which he did at forty paces by a shot in the forehead. This laid the cow prostrate for from five to ten minutes, during which blood poured out of the wound in a torrent, forming quite a pool; but after this interval the animal rose, much to the delight of its distracted calf, and trotted after the herd, thoroughly cured of further designs on the beaters, and in a few minutes more—unfortunately in the absence of the crow's-nest party at luncheon—the whole herd, four large and three small, dashed along the entrance drive into the kraal, trampling down the bambu jungle and passing at lightning speed and with the sound of rumbling thunder into the kraal.

"Caught at last!" was the cry, and the grand stand was speedily occupied, while the order went forth to old Iddamalgoda, who now appeared on the scene, that an attempt should at once be made to move and tie up one of the herd.

But, alas, the princes were timed to leave at 1.30; they lingered on till about 3 p.m., and so secured a passing sight of the herd in the kraal and were presented with the tail of the elephant shot. Then Prince Albert Victor, His Excellency the Governor, Lady Longden, Sir Edwin Johnson, Lieut. Adair, and Captain Hayne, A.D.C., started for Colombo; while Prince George, with his tutor, the Rev. J. Dalton, Captains Lord Charles Scott, Durrant, and Foot—as well as Admiral Gore-Jones—remained some hours longer in the hope of witnessing a noosing and tying up. Beaters were already hard at work with catties, and very soon two or three of the tame elephants lent their effective aid, butting down gently but effectually trees of no mean magnitude: everything in the shape of light jungle speedily disappeared from around the royal stand. The enormous government "tusker," fully roped and equipped for the noosing and tying business, now moved down in stately measure among the spectators to the eastern side of the kraal, where, at the word of command, he lightly and readily slipped aside the top beam and dropped the one end from his trunk to the ground. He crossed the lower beam, still over four feet high, without difficulty, and proceeded into the jungle. I passed on to the remoter end of the kraal, where a continuous trumpeting, varied by stentorian but painful cries of the bereaved baby-elephant, indicated the presence of the herd hidden in the dense bambu jungle. Nothing could be seen of them here, however—only the occasional waving of the bambus. Turning back, I found that the government tusker had got rid of his keeper inside the kraal for some reason, and was vainly trying by himself to slip back the upper beam again in order to get out of the kraal! Fortunately for the thousands of natives and some Europeans too (who could not well stampede through the close jungle) the beam had been firmly secured, and very soon the keeper once more resumed his work and authority, and the tusker went to work, although, apparently, he was not to be depended on so much as the remaining tuskers' trio. After a good view of this end of the kraal from Mr. Charles de Soysa's stand, I went on to

the grand stand, inside the kraal, where Prince George and party were waiting for the exhibition which never came off. Although two or three encounters took place, and although a band of volunteer European parties undertook to drive from the lower end of the kraal, no favourable opportunity for noosing could be obtained, and the prince had to be contented with the several ineffectual attempts made.

The fact is that the attempt to noose on the same evening as the capture is unprecedented, and the civil officers scarcely expected success. The usual and proper course is to allow a night to intervene, during which the captives trample down all the "batali" and other jungle stuff, exhaust themselves in examining their prison, and finally lie down in whatever puddle may remain in the hollows. Noosing and tying can then proceed in a business-like way. Clearly, neither chief nor retainers could feel much enthusiasm in the after-proceedings of this afternoon. That the tame elephants and keepers did their duty well is vouched for by the experience of a planting friend who, occupying a prominent position in a high tree inside the western side of the kraal, witnessed a charge of three tame elephants on to the quartette of big ones in the herd, which fairly astonished him. The trio were arranged in line, facing the position in the bambu, where the herd gave evidence of their presence, and all at once in regular and most rapid motion, at the word of command, they charged, butting the herd fairly over or on before them. So rapid and regular was the run, that the three seemed as one, and to run like a racehorse.

As a finish to my day's work, I paid a visit to the dead elephant, which lay in the bambu jungle not far from the western entrance. The fatal shots on the forehead were examined, as well as one in the ear; the ears and feet as trophies or talismans had already been either cut off or hacked about. We were a party of twenty or thirty, including natives, around the prostrate animal, when suddenly a crash through the jungle near at hand was followed by the cry of "Here comes the herd!" and, sure enough, the wild elephants, closely followed by two of the tame ones, appeared to be making directly for us. There was screaming and shouting enough in good earnest, and although the only risk lay in a hurried stampede in one direction, the pursuers being behind, clearly discretion was the better part of valour, and a rush was made for the barrier.

A HARD DAY'S WORK, RESULTING FINALLY IN THE CAPTURE OF TWELVE ELEPHANTS, INCLUDING A SPLENDID TUSKER.

THURSDAY EVENING, *February 2nd, 1882.*

We were met at an early hour by an official intimation—probably written the night before—to the effect that the public were requested not to approach the stockade and kraal, as Ekneligoda's herd was within easy distance, and the attempt was to be made to open the barrier gate, drive them in and kraal all together. This was a disappointment, because it added to the risk of there being no noosing at all this day; but before we had fully realised the new "situation" created by the official "proclamation," came the authentic news, meeting us on the road up to the kraal, that the whole of the six elephants kraaled the night before had escaped during the night, and that the kraal was vacant!

This proved to be the fact, and the explanations rendered were most varied. One statement was that part of Ekneligoda's herd had broken

in during the night, and the palisade being knocked down, all escaped scot-free again ; another account made it appear that the gate must have been opened preparatory to the further kraaling, and so in being too greedy, crying " more, more," those already held were lost. The official report is that a " tusker " from Ekneligoda's herd—and it is supposed to be the same " tusker " as visited the kraal the night before—broke in again so effectually as to release his sisters and brethren, old and young, in distress. But where were the watchmen planted all round the kraal the night before with wands and spears immediately alongside the barricade ? Well, there can be no doubt they were grievously to blame, and as evidence that they have not escaped punishment I may mention that the Government Agent visited them at an early hour this morning to give them " a bit of his mind," winding up, I believe, with a smash of " crockery " (!) including chatties—a great deprivation for Sinhalese " jungle-wallahs."

But, in defence of these poor fellows, let me say that their story has it that they were beset by wild elephants prowling round the kraal from the outside, and so, between two fires, they could not give their attention to their charge as they would have liked. There are further explanations, however, namely, that their chief Iddamalgoda had to listen to some sharp words the night before on account of the slowness of his people to effect a noosing, the threat finally being that the Government would not allow them to have a single elephant from the herd, since they allowed Prince George to leave without tying up one. The old chief said nothing, merely shrugging his shoulders ; but it is quite conceivable that his people cared little about keeping strict watch and ward over the herd that was to be taken from them. Another reason for discouragement was the shooting of the big " cow " elephant : the beaters did not like it a bit :—" Here we have been driving in the jungle for weeks, and after we have brought this elephant eighty miles or so to within as many feet of the gate of the kraal, you go and shoot it ! " This is certainly not the native plan, and it is all attributable to the terrible haste made in the present proceedings in order " to catch the princes." Another six hours must undoubtedly have brought in the mother as well as calf in safety.

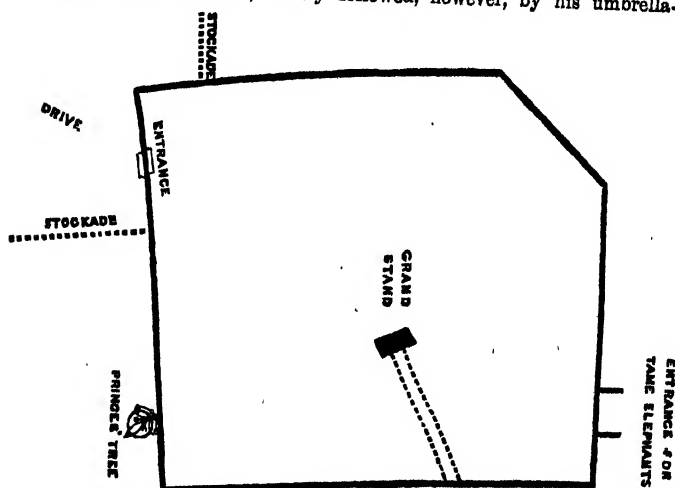
From an early hour Mr. Templer (who had so steadily accompanied Iddamalgoda's herd to the kraal) was out with Ekneligoda and the larger herd, now coming rapidly forward. Whether this chief's circle of beaters had intercepted and added to their herd the six escaped elephants is a matter of doubt ; but they certainly brought on as many as twelve elephants of their own, and beating up from early morning, the most perfect stillness being maintained in and around the stockade—due very much to the great number of departures—shortly after noon the herd was reported well on in the kraal drive,* and at one o'clock Mr. Saunders's report was : " Drive-in probable in a quarter of an hour." From that time on to five o'clock, most trying, vexatious, disappointing, and yet most exciting was the experience. I question if ever before in the history of kraals there has been so strange and mixed an experience.

The sketch on next page will give an accurate idea of the way in which Ekneligoda's herd had to approach the kraal. There is a ridge and valley behind the kraal valley.

The herd, after coming down the drive, had rounded the hill and faced

* The drive for a couple of miles round the range, down the gorge and on towards the kraal till the stockade was reached, was most finely carried on : the cries of the beaters ever came nearer and nearer ; but when the elephants sighted and scented the stockade they stopped short at once.

the kraal about 1 p.m., as I have said. The cries of the beaters came steadily onwards so far, and progress, though a good deal slower, was made for an hour more. Most exciting was the scene then; the proximity of the elephants was evident, the tree-tops waved, the bambus cracked, and every now and then uplifted trunks rose over the bambus, and a rumbling of trumpeting—the simmering of baffled rage—swelled the excitement of the few hidden and silent onlookers, as well as that of the beaters. Between 2 and 3 p.m. the drive-in became so certain and imminent that Ekneligoda and his immediate bodyguard or attendants (five stalwart swarthy fellows) left “the beat” to see if all was right at the Government Agent’s corner, whence the entrance could be commanded. This was below the princes’ “crow’s nest,” to-day, alas! deserted. [I wish I had time to give you a proper idea of Ekneligoda, as he came up the path of watchers outside the drive, billycock hat and common cloth as usual, closely followed, however, by his umbrella-



bearer in gorgeous costume of flowered comboy, big comb, etc. Evidently the Sinhalese chieftain when on the “corral” path likes to look like his work and to leave all outward show to his servants.] Sure enough, Ekneligoda had not been long at our end, when the elephants rushed as if for the entrance; but they stopped short, irresolute; then, getting into the open, some of them made a dash at the palisades of the drive facing us, and immediately we all—a dozen Europeans, backing the watchers led by Ekneligoda—shouted and screamed and struck trees and fences to our hearts’ content. This drove them in a mob on the other side, where, at the palisade as well as far up the hillside, were a number of planters, besides the usual stockade guard. They soon made it plain to the herd they could not break through there; and then was witnessed a sight probably never before paralleled—seven or eight goodly-sized elephants standing in a semicircle together, heads to the centre, immediately in front of the entrance to the kraal, and yet not making the slightest attempt to enter! The rest of the herd farther up the drive

kept the beaters back by charging now and then ;* but evidently there was now an obstacle in the way, or such demoralisation as made it most uncertain what to expect of the elephants. The most likely explanation became evident with the recollection of the "dead elephant," shot the night before inside the entrance, and the track of blood which no doubt ran along from the barrier. On smell elephants chiefly depend to warn them of danger. The scent of danger ahead was only too apparent. "Better perish where we are," seemed the thought of the seven companions in danger, as they stood rubbing each other sympathetically, "than pass that truly bloody gateway and be shot behind it."

Baffled again and again, and worn out by their exertions, it became clear that Ekneligoda's men wanted help. This had been suggested to the chief already once or twice, and Mr. C. S. Agar, who had been summoned at an early hour by Mr. Dawson to aid with his trusty rifle, had been eager for some time to join the drive, and by discharging blank shot to inspire the beaters to urge the drive on.† Mr. W. S. Murray at last conveyed the pressing request to Ekneligoda (who had again rejoined his people) for Mr. Agar and twenty or thirty European volunteers to join the ring, and, after an interval, it was granted on condition that no shot should on any account be fired at the elephants.

Mr. Agar, rifle in hand, quickly followed Mr. Murray to the beat in the valley, and, Mr. Saunders sending the call round, I speedily saw pass on from our side Messrs. Thring, Talbot, and C. R. White, the admiral's flag-lieutenant (the admiral had all day attended closely on the proceedings with imperturbable good humour and encouragement), and three or four more whom, in their hasty descent through the scrub, I did not recognise. A still larger body, chiefly planters, passed into the drive round the opposite side of the kraal. Most unfortunately, the volunteers had barely reached the circle of advance when the rain, which had been threatening for some time, began to descend in torrents : black and hopeless rolled the clouds over the devoted valley and the apparently illfated drive ; the thunder boomed and the rain poured, and it seemed as if "hari-hari-hooi-ooi" was at an end. The cry was raised again and again, but was positively drowned in the greater noise of the elements. From many points of view this ill-timed rain seemed to doom the whole enterprise. It gave the thirsty elephants refreshment, a breathing space, and fresh courage ; night was coming on ; the drivers could not stand their ground so close up to the herd all night ; their camp-fire must prove a failure ;—and hope had sunk to zero ! The dead elephant had, apparently, saved a score of living companions from being kraaled.

I had taken refuge from the rain in a watcher's hut ; but about 4:30, finding the rain soaking through, and no appearance of a clearing up, hopeless of a kraal, and anxious to get on ten miles homewards after my boxes, which had, alas, gone on before me, I determined to start off. I made for Kraaltown in a woeful condition ; the pathways were being swept by torrents, the road down the hill at some corners was a perfect

* About 1:30 the tusker made a full charge ; there were some visitors at the time with the beaters ; later on, when a great many European volunteers had joined, a regular charge of the herd took place, and three elephants escaped up a ridge along the centre of the drive, being seen from the stockade to pass through the beaters. Altogether four charges were made on the volunteers.

† Mr. A. J. Campbell had previously pressed to be allowed to lead twenty-five Europeans and fifty native beaters, guaranteeing success with the drive, but, Ekneligoda then protesting, this was considered inadvisable.

rapid, and at its foot the "ela" in front of Kraaltown, which had hitherto been crossed at a low ebb, was becoming an impassable river. I arrived early enough, however, to be carried over with the help of two coolies and a Sinhalese servant, who rushed to our assistance when in a hole near the other side. I found Kraaltown pretty well deserted; and, with boxes gone, no "change" was available, though I was drenched to the skin. Eventually, however, I secured sufficient for a change by borrowing in four different quarters! I merely give these trivial personal details to show what kind of an evening had come on, and what the experience of many others was; and still more what was the state of the men at the post of honour and of danger in the jungle drive.

About six o'clock grand tidings came down with men who, drenched to the skin already, thought little of wading or swimming the river. Gathering up the reports of half a dozen of the eye-witnesses or partakers in the final charges and drives, I will endeavour hastily to present a consecutive trustworthy account. For the elephants now, it was clearly a case of

Officers to right of them,
Planters on left of them,
Beaters behind them,
While all the herd wondered,—

or rather felt a much less pleasant sensation. Messrs. Agar, Thring, Talbot, and their party lost little time, rain or no rain, in beating to quarters: they urged the drive in again and again; shot succeeded shot; "hari-hari" became the rule; and the drive was one scene of excitement. Several minor charges to the line took place: but the rain and the advent of the Europeans sent the beaters to huddle under trees and clear out. It became evident that the Europeans could not work without a base line being cut out of the jungle, and the natives were brought back to cut down a semicircular path behind the elephants. Torches were also prepared, weapons improvised, and all made ready to force the herd on.

Mr. Saunders now appears to have, as a last effort, descended into the beat, and, while his volunteers were using every exertion to drive in, he climbed up a tree to catch the exact situation. I am guessing at this intention from what followed. On the stockade near the drive, at the angle joining the kraal, sat four planters watching the struggle, who had not yet joined in it. Mr. Saunders called on them to lend a hand, and they immediately passed in, led by Mr. Sandison. Arrived at the beat, and immediately behind the herd, Mr. Sandison, who carried a short spear, looking round for a torch, the most trustworthy of all weapons of defence in dealing with wild elephants, spied Mr. Unwin alongside with one, and arranged in a word that they should go on, shoulder to shoulder, together. But Mr. Sandison's former companions, not understanding the arrangement, pressed on between. Several others from the beating line followed. Sandison advanced right up to the elephant, and with a prod sent it—a huge mother with a little calf—right on the herd with a rush! Some of the main body of elephants thus charged sprang over the ravine towards the entrance, pressed on by Messrs. Wighton, Thring, Talbot, and others. Not so the wild mother and her calf, the tusker, and two or three more: they only rushed forward to wheel round, and charged fairly back into the centre of the Europeans, who, much in advance of the natives, were left without any support. The rank broke, and the volunteers tried, but only tried,

to get out of the way in all directions; for there was no room, and a bambu "batali" jungle is not the place to escape through. Down went the men as if shot; about twenty were in the scrimmage, and more or less "down"—very "down in their luck," it must be confessed, did a good many consider themselves to be. The "Laird of Logie," who had done yeoman service all along, went down as if felled, and this was by far the narrowest escape, I learn from the others, for the calf fairly vaulted over his prostrate form!

Intercepted by the native beaters farther out, it is said that the infuriated female and her calf once again returned in a rush through the adjoining ravine up to the entrance; but it is very doubtful if she went in.

A few minutes before the gate was closed—on, certainly, a dozen elephants—a part of the barrier near the princes' crow's-nest was the object of a fierce charge by a huge brute—perhaps the "tuskier" which Mr. R. H. Morgan, from one of the stands, rightly declared he saw inside. For a hundred yards the barrier shook as if it were going to fall, and the charger got his forefeet through; but two or three Europeans, led by Mr. H. Whitham, rushed to the spot and drove him back.

COMPENSATION FOR ALL THE DELAY—EXCITING DAY IN THE KRAAL—
NOOSING AND TYING—SIX OUT OF TWELVE ELEPHANTS NOOSED—
GREAT SPORT.

FRIDAY MORNING, *February 3rd, 1882.*

Yesterday morning, while waiting for the early drive we then expected, we spent some time with the four tame elephants belonging to Mr. Charles de Soysa, and by him, with commendable public spirit, ordered to the kraal in case their services should be required. One huge tuskier, "Siriwala," is supposed to be over eighty years of age, and therefore too old to be of much service in "noosing" and "tying up" wild elephants. But he will be useful in beating up and blocking the way of retreat, since his stately presence is of itself sufficient to inspire a wholesome terror in the minds of his comparatively puny compeers, and as elephants have been described as "half-reasoning animals," they will no doubt keep at a safe distance from Siriwala's tusks. Much less attractive, though far more useful to his owner, is the small and tuskless "Rajah," for which Mr. de Soysa paid double the price of old Siriwala. Rajah cost £100. He goes through a number of performances to perfection. The 'cuteness with which he looks after the equivalent of "threepenny bits" in the mud—blowing away the latter, and at last, when baffled in his attempt to pick up the tiny coin by the edge with his sensitive trunk, drawing it in by suction, was very striking. Once caught, he held it safely until, with upturned trunk, he delivered it to the keeper on his back. Mr. de Soysa turns his elephants to account in carting, ploughing, road-making, and felling jungle in his Ratnapura and other extensive properties; and surely this last mentioned is an occupation for which they are specially well adapted in the low country, considering the way in which they knock down with their heads trees which would take some time for a Kandyan to cut through. Why should not a "felling" elephant, more especially for low country planters, be hired out like a portable steam threshing-mill at home?

Many people, in speaking of last night's work, condemn the native beaters because they refused to do what the Europeans effected; but this is a very inaccurate and foolish mode of criticism. The natives

knew the actual danger of the situation from long experience—the Europeans did not. The beaters, knowing that a charge or succession of charges would be the result so soon as the “durais,” or “mahatmayás,”* went in with fire and spear, cleared out of the way as fast as possible: the more men in the way in such a case, the more havoc. Finally, we would ask how many of the volunteer beaters and of “the forlorn hope” would repeat their work under the same circumstances were the opportunity offered to them? We think the men who came out saying they had been taught a lesson which would last a lifetime, were those who took the right view, and instead of depreciating the work of the beaters, who had been driving for weeks together when the elephants were *fresh*—not half-starved and worn-out—the opinion of the volunteers respecting their endurance and pluck ought to be sustained.† No wonder that Mr. Dawson should say that he wished the visitors who ridiculed the slow work made on Tuesday and Wednesday had come down to see the character of the jungle through which the work had to be done, or that the princes had been allowed to inspect it. The small cane-like bambu grows so closely together as to be impenetrable; the only paths are those made by the elephants, or which are cut out by the beaters. The bambu, when levelled by the elephants, is as slippery as ice, and the rain had rendered it, if possible, more so.

Let me now describe the spot. The last part of “the drive” between the stockade is about 150 yards across; it was covered with the densest bambu jungle; it consisted of two hollows or ravines with a ridge between, and all inclining towards the entrance to the kraal. From the entrance to where the European volunteers took up their position could not be more than 250 yards, the elephants being between. It will be readily seen, therefore, that the ground was as difficult a place to work in as ever an old campaigner or sportsman encountered.

Returning to the grand stand, now well filled, it was evident that the four safe-working, tame elephants, and the two or three of the reserve force, had commenced active operations. They were mounted by from two to three noosers each, while several assistants with spears and ropes followed behind at the sides of the elephants, under which they occasionally ran when there appeared to be any danger of a charge. The wild elephants were in a state of great perturbation, rushing from one side of the kraal to the other, occasionally resting under the few patches of jungle that still remained, going down into the hollows to throw water and mud over their backs—spurting each other with water seemed to be a favourite occupation. It was a most amusing as well as touching sight to see the little calves do this to the tame elephants when near them once or twice, as if to appease them and make friends. Clear views of all the herds were now had, and the elephants could be counted. The “tusk” is a huge fellow in bulk more than in height: he has lost half his tail, as if it had been shot off, and his tusks are most unusually far apart in the way they stick out, and they also seem to have had the points broken off. He never seems to lead the herd, but rather to follow after. Nevertheless, Mr. Unwin is sure it is the same animal that came to the kraal at midnight, and was shut in and afterwards let loose. This was in a manner proved by the frequency with which he made for the western gate to-day in his wanderings, in the hope, no doubt, of getting out once

* *Durai* Tamil, *Mahatmayá* Sinh., for master or gentleman.

† There can be little doubt that, if the natives had been left to their own time and ways, the whole twenty-three elephants of the two herds would have been kraaled.

more. Once only did he try to charge the palisade, but, before he could get as far, the pointed sticks and spears of the watchers and the shouts of thousands of spectators drove him back. After the "tusker" came one large "cow" and five more medium-sized elephants; then three well-grown calves and two puny, diminutive little things whose dusty, tired appearance excited much pity, more especially from the ladies and a few children present.

The tame elephants and noosers were now at work, trying to break the herd into detachments, to segregate one or more, so as to get a chance of surrounding and noosing. Very troublesome and difficult is this operation: occasionally it is done by good luck in the minimum of time, while again hours may be spent over it. As it was, after what seemed a long time to the onlookers (relieved, however, by some exciting and still more amusing passages), two, or indeed three, got noosed almost instantaneously. Save with the little ones, there was no attempt by the herd at fraternising with or even recognising the tame ones. The sight of men on their backs seemed to put an end to all thought of such a thing, and they steadily avoided a meeting as long as they could, dodging up and down, in and out and round about, until, once too often, they came across through a hollow, and the Philistines—in the shape of Ranhámi and Ellawala's man of "the breeches"—were among them. A slight attempt at a charge or fight was quickly repressed with a few blows from the spears, and a thump with the head of the tame elephant; the "tusker" sheering off, showing no inclination to interfere. But not so with the little calf, who, when two of the larger elephants were jammed up, and a noosed rope, cleverly placed on a leg of each, was tied about them, cried out, and would not be comforted or induced to leave. "Breeches" and Ranhámi were now in for serious work; their prizes struggled with elephantine strength; one especially—the mother of a calf—could not be moved from the spot, and in rage and despair at last fell prostrate, never to rise again! The struggle was a short but severe one, and the natives at once recognised it as a case of "broken heart." The poor brute lay panting for an hour or so afterwards, then heaved a deep sigh, and at last all was still, save that the little calf would not leave her side for a long time, and that once or twice the rest of the herd, in passing the spot, attempted to heave up their companion. Far more touching, however, was the sight witnessed the night before by Mr. D. Mackay, when two elephants made a persistent endeavour to raise their fallen companion, the dead cow, while its little calf tried once more to obtain sustenance from its parent.*

To return, however, to the second large elephant noosed: he was a plump, vigorous, medium-sized fellow, and resisted most determinedly the moving, pushing, and dragging of him halfway across the kraal, and the final tying to the tree. This, in fact, was only accomplished when Ranhámi and "Breeches" jammed him between their elephants, who, evidently fully understanding what was wanted, pressed so hard and so guarded the ways of exit with their trunks, that their captive had perforce to remain perfectly still. All this was a most interesting, instructive sight, and then, when the tying was done—the hind legs only being securely clasped in several folds of strong rope, which again were drawn several times round a tree immediately alongside the grand stand—how the poor prisoner writhed and twisted, using all his prodigious strength to break away the rope, or pull the tree down, running round and round

* Messrs. W. L. H. Skeen and Co's photograph of one of these pathetic incidents is reproduced in the illustration, page 284.

in despair of an outlet, pawing the earth, stretching himself with eel-like contortions, and then, in hopelessness of any release, and under the agony of his disgrace, like a true Oriental, throwing up clouds of dust over his head and back with his trunk ! Very soon, another of similar size and appearance was noosed and dragged up a long way to a tree facing Byrde's stand, and one of the active bull-calves being simultaneously caught, very quickly the fun became "fast and furious." This little calf gave more trouble than the two big ones ; the noosers left him as soon as one leg was confined to a tree, and to less experienced hands was left the task of tying a rope round his neck and shoulders so as to keep him quiet and secure. But how the fellow resisted, struggled, twisted, and threw the rope off ! The noose had to be passed over his head as well as trunk, but the latter was sent out at all impossible angles, so that no rope could be placed round it. At last, Messrs. C. Agar and Munro descended to the rescue, but they were baffled again and again ; as soon as the rope was round it slipped off ; they were charged and had to fly back ; the little fellow bellowed like a bull ; he blew at them, he would not be tied, and not until some one seized the trunk and held it, was the rope got round and a secure shoulder-knot made. This done, the calf set up a regular series of bellowings, making more ado than all the others put together. Great was the amusement afforded by this capture, and again and again was the wish expressed throughout the stand that the princes had stayed for this day's experiences, which well repaid all the trouble and delay.

But still greater fun was to follow ; another calf, plump and strong, had been noosed, as well as a third big elephant, and as these were being pulled towards two suitable trees one of the noosers, getting an ugly shove from the calf, received a wound on his forehead which drew blood. Almost simultaneously Mr. Saunders sent orders to release these two captives at once, and noose the "tusker," as many had to leave and the day was now wearing on. No sooner was the calf released than he charged right and left, with trunk uplifted, bellowing as he went, and carrying all before him among rows of native beaters and a number of planters and others who had now descended into the kraal near the stands. The scene was comical in the extreme ; there was just the least spice of danger to add zest to it, but the little fellow turned at the show of a pointed stick. It seemed as if he said, "You have given me a great fright ; now I'll do my best to give you a taste of the same." White clothes especially seemed to provoke his anger ; one or two gentlemen in white coats were followed again and again ; one of them, Mr. E. Smyth, between laughing and dodging and keeping off his mad but cute little antagonist, had quite enough to do, and the spectators roared at the fun. Tired out at last, the little fellow with a loud grunt made for the tame elephants, and ranged himself alongside, as if with his friends. He did not seem to care about the wild herd now ; he was a civilised elephant, and followed the tamers wherever they went. At last he found out Soyss's "tusker" standing on one side, and charging under him created a tremendous uproar, for the tusker didn't like it a bit, and trumpeted out what seemed to be : "You mind your own business, you young rascal, or I'll settle you." Nothing, however, could quiet this "irrepressible" altogether ; at odd moments he would make a charge on his own account right across the kraal, and there can be no doubt that he greatly disturbed the rest of the noosing, so that it was a pity he was let loose, save for the amusement he gave to the company. The wild "tusker" would not be caught ; he showed no fight, would shirk a broadside, slunk aside and dodged ; and yet it became evident the tame

elephants and the noosers did not care to get too near him. The fact is he is too old to be trained, and is of no service at all, save for his ivories, which can be got by shooting. ["Cured of sores" is the expression used to indicate a tamed elephant.] Enough had, however, been seen to warrant all who waited over Thursday, in pronouncing the kraal a success in showing the various operations connected with one ; a notable success in affording a more than usual amount of sport and comical fun, as also in raising, at moments, feelings of sympathy and pity ; an extraordinary success in the unprecedented work done by European volunteers—"the forlorn hope," the sudden charge, the marvellous escape, and the crowning victory in the forcing in of a dozen elephants into the kraal on Wednesday night.

How many more of the six or seven wild elephants I left running about the kraal were noosed to-day (Saturday), and whether the "tusker" was tied, I have yet to learn ; but my part as narrator is over, and I can only say I am not likely ever to forget THE LABUGAMKANDA KRAAL IN HONOUR OF PRINCES ALBERT VICTOR AND GEORGE, in 1882.

APPENDIX V.

ROUND AND ACROSS THE ISLAND.

(By J. FERGUSON—WRITTEN EARLY IN 1891.)

On Board the S.S. "Lady Gordon."

"TWICE round the world and never round Ceylon" is a reproach on an old colonist, which has scarcely been wiped out by our recent holiday trip. The circumnavigation of the island has yet to be completed, or at least that portion between Batticaloa and Point de Galle. It was no dislike to our good steamer, the *Lady Gordon*, that made our part of the voyage end off the Batticaloa bar. We can truly say that the longer we continued on board the more we liked our quarters and her ladyship—a perfect sea boat, as she has proved herself in more than one storm and difficult passage, buoyant as a bird on the roughest seas—and under her careful, attentive commander we should be well pleased to run to Dunedin, Yokohama, or the Pacific coast in place of round Ceylon in our favourite island steamer *Lady Gordon*.

How great the change in outlook which a single day's voyage from the palm-covered coast of Colombo can effect! Drawing near the low-lying sandy coasts and islets which betoken the neighbourhood of Paumben, we may well rub our eyes and begin to doubt whether we are not off the Egyptian coast and preparing to enter the Suez Canal. A closer inspection dispels the illusion, and the passage of the Paumben Channel, though not without its inconveniences and even risks, considering the often very strong current and the tortuous course followed, is still only to be compared to one of the bends in the far-famed canal, the last mile in the smaller Bitter Lake, which, however, has often proved a snare to heavily-laden steamers. In our experience of Paumben, we saw how delays arise through one vessel having to wait on another—the S.S. *Aska* having first entered the channel from the other end, our steamer had to hold back until she had passed out.

AT PAUMBEN AND RAMESVARAM.

It is very convenient for passengers when the S.S. *Lady Gordon* can afford those desirous of visiting the far-famed Hindu temples of Ramesvaram the necessary time. The next point of call is Kangesanturai, the port of Jaffna of the north-east monsoon season, and as there is no object in making that port before daylight, a few hours' stay of the steamer at Paumben causes no delay in the voyage. There is nothing attractive in Paumben station itself, low-lying, with abundance of the sand which distinguishes the island and reminds one of Egypt, and with

more than Egyptian heat. Arabi and his fellow Egyptian exiles ought to feel at home here, and they might do worse than pay a visit to Paumben (and the north generally) when their "souls are vexed within them," and their constitutions affected by the persistent moisture of the Colombo monsoon season.

In landing at Paumben, the chief curiosity is not to inspect the station with its two European bungalows, the lighthouse, or the tidy coolie hospital, the clean smart coolie transport vessels, the plain but neat little church, well-filled school, or other offices—and not even the monument on the beach (getting into rather a dilapidated condition) to worthy Mr. Gibbs—nor to recall the interesting fact that Captain Dawson, R. E., whose monument stands at the head of the Kadugannawa pass as denoting his share in Sir Edward Barnes' great military road—really lost his life some years after when engaged in surveying the Paumben passage.

The *Lady Gordon's* passengers are bent on a visit to the Ramesvaram temple, a drive of eight miles across the island from Paumben, by a road which it has been one object of merit-seeking pilgrims to keep up—a road which in some respects reminds me of the route from Cairo to the Pyramids, but which for considerable lengths resembles, with its paved tracks, the main street of an ancient city with ruins of temples, bathing tanks, residences, villages on either hand. Ramesvaram far exceeds in extent, height and massiveness of buildings any other temple structure or enclosure in Ceylon. We walked round the walls and freely through the corridors, and without attempting any detailed description from my own pen, which Dr. Eastwick's account in "Murray's Madras Guide" appended renders superfluous, I may say that in contrast with much that was tawdry or hideous, the loftiness and length of the colonnades and the striking effect of coloured massive pillars, chiefly arrested the attention of our party. The chief priest and his associates were busy with their accounts and the distribution of rice to their retainers; but they affably paid attention to the strangers, and the leader mentioned that the offerings of the last festive occasion amounted to some R.4,000. Of course, this may be well on the safe side, and, at any rate, it affords no criterion of the amount spent by pilgrims outside in their lodging and eating houses during their stay in the place. Lighted up and crowded by thousands of pilgrims, the high festive occasions must be impressive after a fashion, and also we should say very risky to health, especially if the water of the sacred tank we saw inside is used for ablution or anointing, much less drinking! The Indian authorities think so little of the great festivals now, that a sergeant and a few constables are all that are told off to keep the peace. But here is the promised Guidebook account of Ramesvaram and its pagoda:—

"**RAMESVARAM.**—But the place of most interest in the eyes of the Hindu, and that which confers sanctity not only on Ramnad, but on all the adjacent country, is Ramesvaram. The town stands on an island of the same name, 14 m. in length from W. to E., and 5 m. in breadth from N. to S., divided from the mainland by the Pambam or Snake Channel, which is now 1m. broad. The island is said to have been joined to the mainland, and to have been separated from it in A. D. 1484, during the reign of Achudappa Nayakkam, Raja of Madura, by a violent storm. A small breach was then made, but the water was so shallow that it could be passed on foot till the time of the next Raja Vishvarada Nayakkam, when another hurricane enlarged the passage, which went on widening with successive storms. The passage was

further enlarged by the Dutch, when they possessed the island. But the greatest improvements have been made since 1830 by the British Government. Previously to this the passage was excessively crooked, hence its name, Pambam, 'Snake-like,' and the depth at highwater and neap-tides was only about 5 ft., so that boats without keels, even after discharging most of their cargo, would be often days in getting through when the current was strong. Since 1837 the passage has been dredged, and more than £15,000 has been expended upon it. At the W. extremity of the island of Ramesvaram is the small town of Pambam in lat. $9^{\circ} 37'$, long. $79^{\circ} 17'$, inhabited chiefly by Labbays, who are pilots and boatmen, and about 50 of them divers.

"The *Pagoda*, the great object of interest, stands at the E. end of the town of Ramesvaram, which is at the E. extremity of the island. This pagoda of Ramesvaram (from Skr. *Ramah* and *Ishwar* God) completes the Hindu's circle of pilgrimage, which commencing with the Temple of Devi at Hinglaj, a little to the W. of Sonmiani in Sindh, proceeds to Jwala Mukhi (Flame-mouth), near Lahur, and thence to Haridwar and down the Ganges to Orissa, and finishes at Ramesvaram at the S. extremity of India. At p. 355 of Mr. Fergusson's 'History of Architecture' will be found an account of this celebrated temple, with a plan at p. 356 taken from the journal of the Geo. Society of Bombay, vol. vii. The dimensions of the temple, according to that plan, are 672 ft. from N. to S., and 868 ft. from E. to W., from the outer wall which is 20 ft. high. The 2nd wall is 347 ft. from N. to S., not 447 (as stated on the plan), and 560 ft. from E. to W. This 2nd wall is surrounded by a colonnade 690 ft. long from E. to W. and 60 ft. broad. The entrance is on the W., under the only finished gopura, which is 100 feet high. According to the 'Gazetteer of S. India,' p. 391, the length of the colonnade from E. to W. is 671 ft. and from N. to S. 383 ft., and the breadth 17 ft. The ceiling is of vast slabs of granite, with pillars of the same material 12 ft. high raised on a platform 5 ft. high, so that the height of the colonnade is about 17 ft. The pillars are all of single blocks of the hardest granite, and are in the principal corridors richly carved. In the central corridor leading from the sanctuary are effigies of the Rajas of Ramnad of the 17th century, to which date Mr. Fergusson assigns the temple, which he thinks may have been commenced a little earlier, in 1550. There are altogether 5 gopuras, of which that on the W. is the only one finished. It is about 100 ft. high. On the E. are 2 gopuras, and all 5 are built of stone, a unique case in pagoda architecture. Mr. Fergusson says ("History of Architecture," p. 355): "If it were proposed to select one temple which should exhibit all the beauties of the Dravidian style in their greatest perfection, and at the same time exemplify all its characteristic defects of design, the choice would almost inevitably fall on that of Ramesvaram."

The legend to which the sanctity of Ramesvaram is due is as follows:—

"Vishnu became incarnate for the 7th time as the son of Dasaratha, the King of Ayodhya, for the purpose of destroying the giant demon Ravana, who was king of Lanka or Ceylon. Wandering in the forest of Dandaka (so says the S. Indian tradition), in the S. of India, Rama lost his wife Sita, who was carried off to Lanka by Ravana. Rama pursued the ravisher, attended by the devotees, who assumed the shape of monkeys. Their general, Hanuman, made a bridge of rocks from India to Ceylon at Ramesvaram, by which Rama crossed, slew Ravana, and recovered his bride. But when he returned he was observed to have 2 shadows, a sign of sin of the deepest dye. This was because Ravana was

of the race of Brahma, and Rama took counsel with the divine sages to discover some means of expiating his crime. They advised him to build a temple and confine Shiva there in a lingam or phallus, which is the emblem of that deity. Rama built the temple, and sent Hanuman to Kailas, the heaven of Shiva, to get a lingam. As he was a long time in returning, and the hour for dedicating the temple was approaching, Kama induced his wife, Sita, to model a phallus of the white sand on the sea coast. This she did, and Rama set up the phallus so moulded in the temple, which was forthwith dedicated to Shiva. Meantime Hanuman returned with another phallus, and was so angry at being forestalled, that he endeavoured to pull up the other lingam, and broke his tail in the effort to twist it out. Hereupon Shiva and his consort appeared from the lingam and said to Rama, 'Whoever visits this lingam dedicated by thee, and bathes in the 24 sacred bathing-places, shall be freed from sin and inherit heaven.' Then, to console Hanuman, Rama placed the lingam he had brought on the N. side of the one which had been already fixed, and ordained that pilgrims should visit it first and then Rama's lingam." Such are the monstrous and impure fables of this locality.

OF JAFFNA AND THE NORTH.

The *Lady Gordon* approached Kangesanturai, the port of Jaffna, during the south-west monsoon, at early daylight. It would be of greater interest perhaps to make the passage to Jaffna in the other (north-east) monsoon, when the steamer has to thread her way among the eight or nine little islands west of Jaffna, passing Delft—Pliny's "island of the sun"—noted in modern days as a breeding place for horses, some R.2,000 worth of which are still annually sold by Government—Punkudutivu, Kayts, Mandativu, etc.

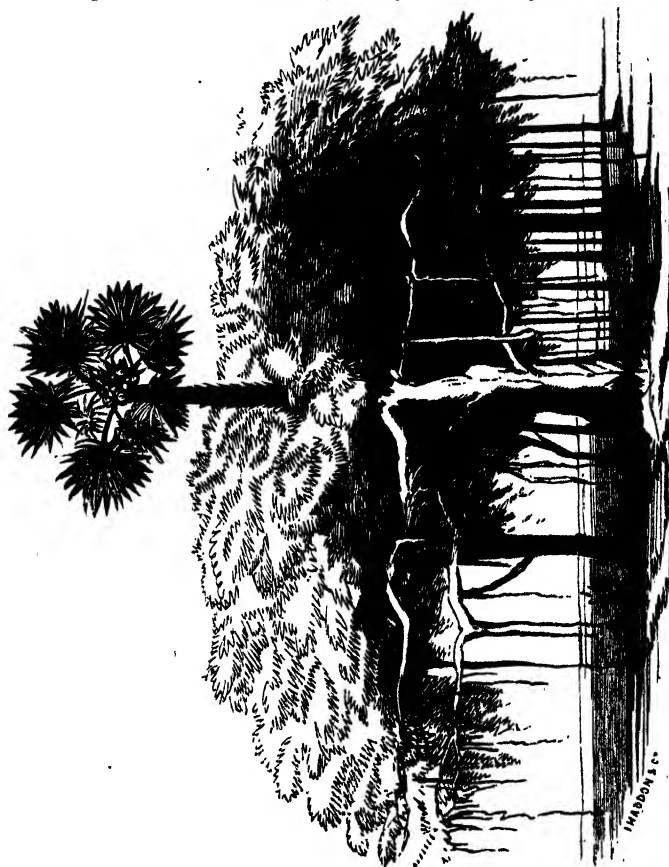
We soon made experience of the far-famed Jaffna roads, which in the forty-five miles of the day's driving altogether proved as smooth and pleasant as the best of our Colombo cinnamon-gardens roads.

Our first stage was to Tellippalai, the seat of the very interesting branch of the American Mission under the care of the Rev. T. S. and Mrs. Smith. Unfortunately they were away in Southern India, and it being vacation time, the scholastic and industrial institutions could not be seen to advantage. But some of the native teachers and scholars located in the place did their best to give us some idea of the arrangements, and the work done in "Sanders Hall" and other educational sections, while the intelligence manifested in reference to the carpentry, ironwork, taxidermy, printing and book-binding industrial departments, showed a deep interest on the part of the lads and their leaders in their industrial occupations.

Our next visit, after turning a little off the mainland to Jaffna through carefully fenced fields, some of which still bore crops of different kinds of grain, gardens of vegetables, or, farther on, of tobacco—all manifesting the utmost care in culture—was to Uduvil, one of the oldest and best-known stations of the American Mission. Here we saw the venerable Dr. Howland, senior, and his estimable daughter, who, with a large staff of competent Tamil teachers of both sexes, manage one of the largest educational and boarding establishments for girls in the island—perhaps the very largest and most complete. Dr. Howland, though now over seventy-three* years of age, is wonderfully active and interested

* He died in August 1892.

in his church and "parish," as well as schools. The sight of over 100 Tamil girls, from five or six to, I suppose, twelve or thirteen years of age, assembled in their commodious and comfortable though plainly-built hall, and their singing of English, as well as vernacular, hymns and lyrics, was a novel and pleasing experience, and one never likely to be forgotten. The dormitories, kitchen, and other arrangements by which the girls are taught to make themselves generally useful were pointed out, and we



UNION OF THE BANIAN TREE AND THE PALMYRA PALM.
Adapted from Sketches in W. Ferguson's Monograph on the Palmyra Palm.

were persuaded, with kind help, to go further afield (in place of going direct to Jaffna) to see the similar boys' establishment, or rather the "Jaffna College" at Batticotta. This enabled us to call at Manippay, the station for village and school work of Mrs. and Miss Hastings, who had recently been bereaved by the widely-lamented death of Dr. Hastings, so universally esteemed in the north for his good works and devoted loving character.

The drive along this cross-country road for some seven miles to Batticotta, and afterward for seven more miles by a different road, into Jaffna town, I may at once say, was most enjoyable. Batticotta is surrounded by far-extending arable farms alternated with groves of palmyra and coconuts, and vegetable gardens cultivated to perfection. The Batticotta educational establishment for boys and young men must certainly be the most extensive in the island. Dr. W. W. Howland (son of the veteran at Uduvi) and Mrs. Howland actively supervise, assisted by Mr. Wallace and a large staff. About 400 collegians and scholars of all degrees are connected with this division of the Mission, and the arrangements for the different branches are most complete, not the least interesting to us strangers being the spacious (though simply built) "hall" or circus for gymnastics.

At Batticotta there is, in a comparatively good state of preservation, a fine specimen of the churches, dating from the middle of last century, with which the Dutch endowed each "parish" into which they divided their much-loved Jaffna possession. In the "God's acre" at Tellippalai and at Uduvil, and in the church of the latter and at Batticotta, many such names came before me in gravestone or wall, including Father and Mrs. Spaulding and Miss Agnew, who gave over half-a-century each to the Mission and never returned to the Far West; Dr. Poor, who was attended in his last illness by Dr. Green (M.D.), would have his little joke even when dying, as he said: "*A poor patient and a green doctor!*" Dr. Green himself, after leaving as notable a mark on the island, or rather on its sons, as any man who ever came to Ceylon—by so many Tamils trained in his medical class—returned to America, only to find that, practically, his lifework had been given to Jaffna. I had the privilege of visiting his home at Worcester, Massachusetts, in 1884, but I found the good doctor on his deathbed. Then there were the names of Hoisington, Sanders and Apthorp, who used to tease his Virginian wife about her slave-owning relatives, and some more, all classical and revered in the history of Tamil Missions in the north. An interesting feature of the same is the extent to which son and daughter have followed father and mother in this Mission.

In one respect, I could not help feeling during this visit to the north—as afterwards in the Eastern Province—the great advantage held by the missionaries to the Tamils over most of their brethren in the Sinhalese districts, at any rate in Colombo, Galle and Kandy. It lies in the far closer relation existing between them and their native work—the absence of calls on behalf of English-speaking congregations and operations which necessarily absorb so much attention in the south.

The town of Jaffna appeared to advantage as we approached it from Batticotta in the early afternoon. In contrast to the expanse of lowlying fields and bare tidal shore to the west, the fort looked quite commanding in position. Looking at the flat and apparently stoneless country comprised in the peninsula, surprise may be felt as to where the materials, especially for the walls, were obtained to construct the Jaffna fort. The native town in its many admirable streets looked the perfection of cleanliness, though the continuity of close fencing, preventing the free circulation of air, could not but be objected to in the case of the dwellings of Hindus and Moormen. There is no want of open spaces, however, on the fort and esplanade side of the town. The latter looks well with the "Longden clocktower," though the timepiece like its founder is inclined to "*wait-a-bit*" or "*bide-a-wee*" occasionally. Inside the fort the most conspicuous object is the old Dutch Presbyterian church, after the pattern and very much of the size of Wolvendal.

Facing the esplanade are the Anglican and Wesleyan churches, and close to the latter the headquarters of the Mission, in an ancient Dutch residence. This has been added to from time to time in order to accommodate the very extensive educational establishments both for boys and girls, with a training institution for teachers just over the way—all carried on under the immediate superintendence of the resident missionary and his wife, for the time Mr. and Mrs. Restarick, with Miss Stephenson in charge of the girls' boarding school. The work done here by a succession of able and devoted missionaries of both sexes, the Percivals, Kilners, and Riggs, has had a notable effect on the youth and manhood and womanhood of Jaffna. The Rev. J. and Mrs. Pickford had recently taken charge of the Church Mission in the north, with headquarters at Nellore. Before, however, reaching that suburb of the capital we had a message that enthusiastic Father Lytton of railway fame was on the look-out for us, and our coachman seemed to know all about it and what to do; for without a word he drove into the quadrangle of St. Patrick's College, where a juvenile brass band, in neat uniforms, were performing. This is the only band in Jaffna, and entirely composed of young Tamil lads, some of whom at least belonged to families or "caste," who considered it greatly beneath them to touch wind ("blowing") instruments, but the "Fathers" remaining firm as to the foolishness of such prejudices and determined to make no caste distinctions—even though some mothers besought them with tears—the result is now a very competent, contented, indeed proud band of players. Most of the pupils were absent, but those who were hastily called together and made to stand in line by the Principal, Father Dunn (like Father Lytton, from the Emerald Isle), were sufficient to show the great importance of the institution.

Though so late for our engagement at Point Pedro we did not miss Nellore, I am glad to say: the fine old church is situated in what may be considered the most pleasant suburb of Jaffna—distinguished by umbrageous trees and an abundance of vegetation. We were glad to find Mr. and Mrs. Pickford so fully entered on their extensive and responsible work—a work which it is feared caused the premature death of the Rev. E. M. Griffith through its pressure of manifold duties. Mr. Pickford was enjoying better health than in Colombo, the overseeing and directing of Chundikuli and Kopay, as well as Nellore, stations entailing a good deal of travelling. We visited the very interesting girls' boarding school so intimately connected with the earnest labours of Mrs. and Miss Griffith, and now under Mrs. Pickford's care; and then Mr. Pickford accompanied and helped us along our road as far as Kopay church, the steeple of which, in the great "cyclone" of December 1884, was blown down, falling into and exactly filling an adjacent well! The station is a flourishing one, and a training institution for teachers and catechists is located there.

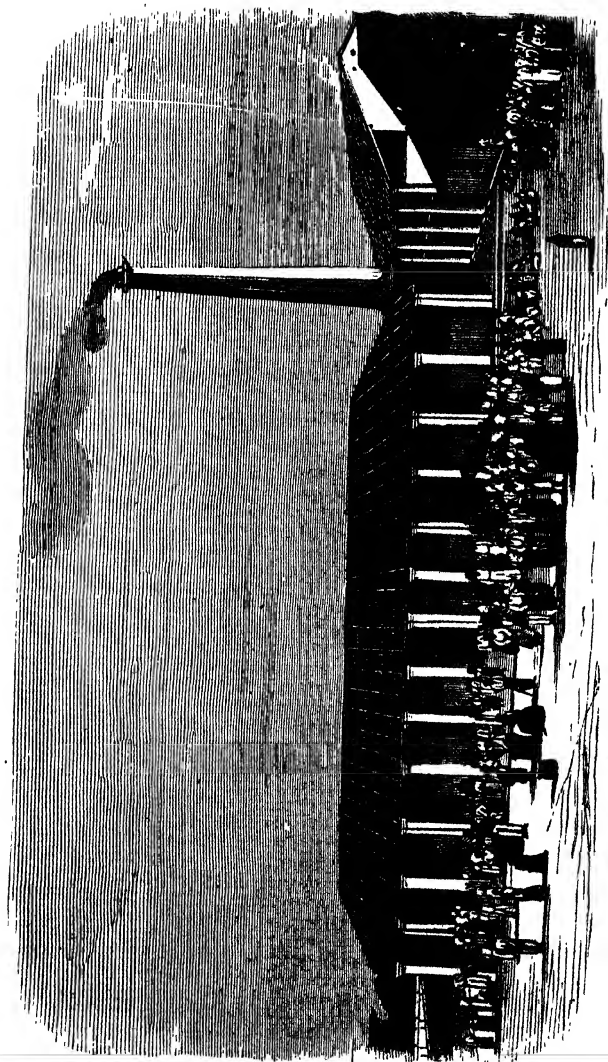
Continuing our journey, we had now a wide stretch of agricultural country before us, and plenty of leisure to observe various forms of agricultural labour among the most industrious people of the north. Working at their wells, raising water for irrigating their fields, was that which more particularly claimed attention. Well sweeps, such as may be seen in the gardens of some Tamils in Colombo, were universal; and the walking up and down the long lever as the bucket rose and fell must be wearisome labour when continued for hours. Occasionally two men, or father and son, stood on the sweep, while a third attended to the bucket. The care taken of the water and the "neatness" of the fields and little vegetable gardens were very striking. Here were half a dozen

labourers busy digging—trenching in manure under the farmer's direction, probably for a crop of tobacco. Here again a large herd of cattle, or of goats, or rather Jaffna sheep, returning home from such pickings of pasture as could be found on roadsides or damp hollows, while the goats and sheep showed their agility, in this the dry season, in standing up to the lower branches of trees and making a meal of the leaves. Here again were boys watching for the ripe fruit of the palmyra to fall. Of course, it is well known that, what the coconut is to the Sinhalese between Colombo and Galle, that and much more is the palmyra to the Tamils of the Jaffna peninsula.

But we are now hastening on towards Point Pedro: we crossed a great estuary of the sea (Sirukalli?) by a grand viaduct, and the view over the expanse of low fields with the estuary running out to meet what seemed the ocean in the distance led our military companion to exclaim, "The Medway!" and certainly the resemblance to that lowlying part of Kent was very strikingly seen as the shades of evening were falling. In the immediate neighbourhood of Point Pedro, the village cultivation—horticulture and market gardening—has always been described as carried almost to perfection; every house or hut has its carefully tended garden, with fruit trees or beds of vegetables or both, each with its well or wells, and enclosed in a perfect fence. These fences, by the way, among the Jaffna Hindus, in the country as well as the towns, have one useful (?) purpose in keeping off the effects of the "evil eye," in which they are firm believers!

It is curious to read of H. M. 52nd Regiment invading and occupying Point Pedro "Fort" from Negapatam, and thence marching to Jaffna. How strange to read even as tradition that the "King of Jaffna" some 500 years ago organised a fleet in which an army was carried to fight against the troublesome Moormen and their forts at Chilaw, Negombo, and Colombo! Of the great coasting trade to and from Jaffna in the past much could be said; also of local industries, in boat and ship building, spinning and weaving cotton, working in metals, especially as jewellers, etc. The "King of Cotta" in 1410 is said to have loaded a ship at Colombo with goods to despatch to his son, the "King" or "Prince" of Jaffnapatam. The prosperity of the little peninsula was, however, we may be sure, never greater than at present. The growth and export of tobacco, a really important industry, of sheep, cattle, etc., and of palmyra timber, enables the people to buy grain and all other necessities to supplement their local production; there is a considerable trade in chank shells—we found the shore in front of the Custom House at Jaffna strewn with bags or piles of them ready for shipment to Southern India. An average of some 50 to 60 elephants are shipped yearly from the Northern Province (paying R.1,000 a head each as royalty to Government); but we found afterwards when at Batticaloa that perhaps half of this number are from other than the Northern Province! At any rate the Government Agent of the Eastern Province gave passes for 21 elephants caught in his territory which were to be travelled overland to the north for shipment. The resulting export revenue should, therefore, be divided.

Leaving Point Pedro in the early hours, the *Lady Gordon* speedily ran down the north-east coast, and in the forenoon we were off Mullaittivu, and looking at the spot where the P. & O. S.S. *Indus* came to grief in November 1885, her masts, if not yards, being still visible. Thence the glimpses of the coast were few and far between till we arrived at the neighbourhood of Trincomalee. I suppose the north-east shore between these two stations is at present about the most



COFFEE STORES AND "BARBACUES" (DRYING GROUND).
The Property of Messrs. Alston, Scott, & Co., Cinnamon Gardens, Colombo.
From a Photograph by Juan de Siles.

man- if not God-forsaken portion of the island ; and yet is not without attractions and resources, if only there were readier means of communication, and population sufficient, and sufficiently energetic, to take advantage of what is available. It is a most striking fact that some of these advantages, which fail to attract the attention of the Tamils of the north and east, are sufficient to draw away from our distant south-western and southern coasts a people usually considered so much less enterprising than the Tamils, namely the Sinhalese ! What have our friends who are inclined to speak of the Tamils as "the Scotchmen of the East" to say to the fact, that all the most important fishing along the east coast—the deep-sea fisheries entirely—is in the hands of Sinhalese ?

The first sight of Trincomalee is disappointing. Notwithstanding that Fort Frederick stands boldly up like an eyrie or watch-tower over the entrance to a mysterious country, there is nothing to arrest attention in the soft-looking laterite rocks or broken hillsides, and certainly no promise from the outside of what awaits the voyager seeking the harbour within. You have a feeling that there is deep enclosed water beyond this fortified hill which like a sentinel doth stand to guard what may be an enchanted land ; but, as in the case of the approach to Sydney, New South Wales, or San Francisco from the Pacific, there is little indication of the grandeur and beauty "within the gates." Sunset poured its yellow flood on Fort Frederick as the signal flags for the *Lady Gordon* were hoisted and left flying ; but ere we had passed the entrance, leaving Foul Point lighthouse in its solitary state far to the south, sunshine was exchanged for the unusual sight over Trincomalee in August of a succession of dark clouds breaking into most welcome showers. Meantime the *Lady Gordon* is rapidly running into harbour, and the passengers on deck have more than enough to absorb them ; for each fresh turn—indeed every few yards onwards—reveal fresh beauties and a new surprise. We find words vain to describe how the disappointment of the previous half-hour is turned into the fullest gratification. The grand Australian and Californian harbours, as well as that of New York, have all the effect of magnificent cities to back them. The Derwent at Hobart, and the Bay of Naples, are very fine in their way, but I can only think, for comparison, of Nagasaki, the first port in Japan, which you approach as if you sailed up to Kandy by the Peradeniya strath. But for varied and extensive natural beauty Trincomalee will ever stand first in my estimation. Well does Tennent speak of "The magnificent basin of Trincomalee, which, in extent, security and beauty is unsurpassed by any haven in the world." On rounding Fort Frederick and standing well in for the harbour, Kottiyar with its populous and industrious Tamil village comes into view across a wide expanse of water, fully exposed, however, to the north-east monsoon. Visions of Robert Knox and his father and their melancholy experience of over two hundred years ago are recalled. But our little steamer is following a winding course, rounding points and threading between islands all more or less clad in tropical verdure to the water's edge, until we find ourselves, as the afternoon closes in, in a splendid basin of water, not simply shut off from the currents and storms of the ocean, but doubly landlocked, the entrance from the sea being completely hidden from sight, and only islands and bays and jetties being visible. Meantime, the sight of Fort Osterburg, the Naval Yard, and Admiralty House and grounds, all in succession, and bounded by deep water to the very shore, reminds us—even without the presence of a single man-of-war—that we are in the great naval station of the East, the headquarters of the Indian fleet which watches



VIEW FROM FORT OSTENBURG, TRINCOMALEE.
From a Photograph by Lieut. R. W. Stewart, R.E.

our British interests from Calcutta to Capetown and from Singapore to Aden and Zanzibar. What was wanting to complete the scene? Even amidst so much natural beauty, and with so many vantage points within ken, how could we help missing the villas, the embowered bungalows and gardens running down to the boat-houses at the water's edge, which would have marked each hillside and island, and would have formed a fitting frame or fringe all round this romantic but admirable sheet of water, had it only been ordained that Trincomalee should become the commercial and political capital of Ceylon!

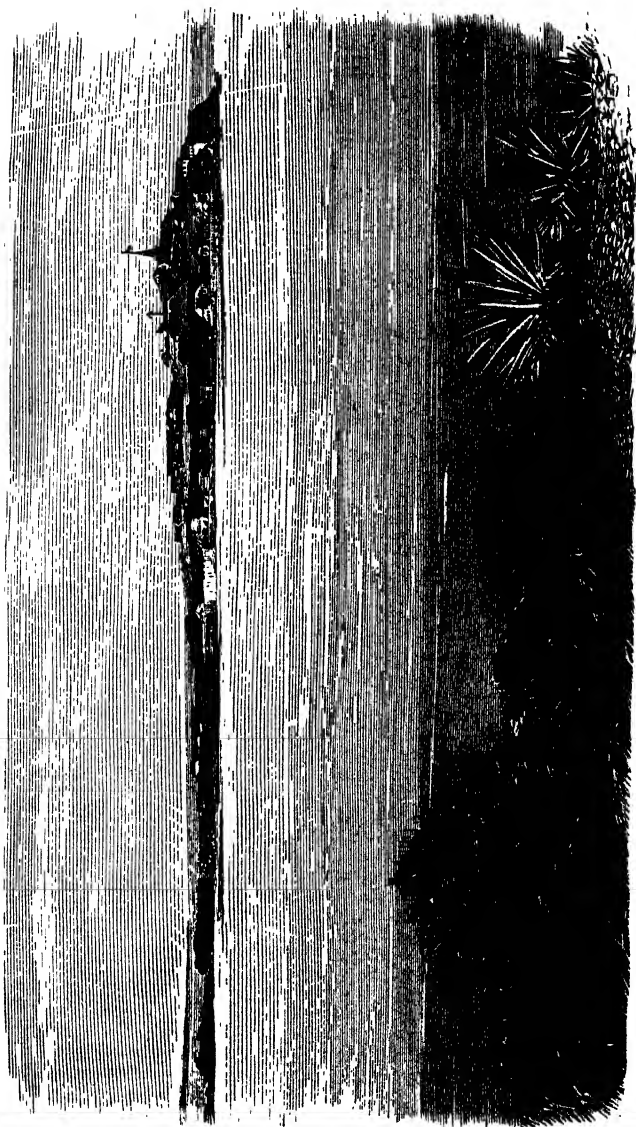
The *Lady Gordon* has cast anchor in front of a jetty (which doubtless if it were worth while she might have run alongside), and before a line of Customs offices and warehouses presenting a great contrast in their still blankness to those left behind at the Western capital. We were able to enjoy a drive round the noble esplanade and to mark the situation of the "Pettah," Back Bay, the fort occupied by the garrison, the coast line and the broken hilly country running close up to the town, enabling one to understand how in seasons of drought, denizens of the jungle (deer, cheetahs, perhaps bears and elephants) have been known to come in round about the town. At any rate, the officers at Trincomalee should not have far to travel for sport, while they are surrounded by a variety of romantic prospects—striking, beautiful, sublime—far excelling those appertaining to any other station in Ceylon.

I must give a quotation—from Tennent—touching on one or two points omitted in the foregoing observations:—

"Trincomalee, though a place of great antiquity, derived its ancient renown less from political than from religious associations. The Malabar invaders appear to have adopted it as the site of one of their most celebrated shrines; and a pagoda which stood upon the lofty cliff, now known as the 'Saamy Rock,' and included within the fortifications of Fort Frederick, was the resort of pilgrims from all parts of India. With this edifice, which is still spoken of as the 'Temple of a Thousand Columns,' is connected one of the most graceful of the Tamil legends. An oracle had declared, that over the dominions of one of the kings of the Dekkan impended a peril, which was only to be averted by the sacrifice of his infant daughter; who was, in consequence, committed to the sea in an ark of sandal wood. The child was wafted to the coast of Ceylon, and landed south of Trincomalee, at a place still known by the name of Pannoa, or the 'smiling infant,' where, being adopted by the king of the district, she succeeded to his dominions. Meantime, a Hindu prince, having ascertained from the Puranas that the rock of Trincomalee was a holy fragment of the golden mountain of Meru, hurled into its present site during a conflict of the gods, repaired to Ceylon, and erected upon it a temple to Siva. The princess, however, hearing of his arrival, sent an army to expel him, but concluded the war by accepting him as her husband; and in order to endow the pagoda which he had built, she attached to it the vast rice-fields of Tamblegam, and formed the great tank of Kandelaia, or Gan-talawa, for the purpose of irrigating the surrounding plain. In process of time the princess died, and the king, retiring to the Saamy rock, shut himself up in the pagoda, and was found translated into a golden lotus on the altar of Siva.* * *

"The scene of this sacrilege* is still held in the profoundest veneration by the Hindus. Once in each year, a procession, attended by crowds of devotees, who bring offerings of fruits and flowers, repairs, at sunset, to

* The Portuguese destruction of the Temple of a Thousand Columns.



VIEW OF FORT FREDERICK AND PART OF DUTCH BAY, TRINCOMALEE.
From a Photograph by Lieut. R. W. Stewart, R.E.

the spot where the rock projects four hundred feet above the ocean ;— a series of ceremonies is performed, including the mysterious breaking of a coconut against the cliff ; and the officiating Brahman concludes his invocation by elevating a brazen censer above his head filled with inflammable materials, the light of which, as they burn, is reflected far over the sea.

"The promontory sustains a monument of later times, with which a story of touching interest is associated. The daughter of a gentleman of rank in the civil service of Holland was betrothed to an officer, who repudiated the engagement; and his period of foreign service having expired, he embarked for Europe. But as the ship passed the precipice, the forsaken girl flung herself from the sacred rock into the sea ; and a pillar, with an inscription now nearly obliterated, recalls the fate of this Eastern Sappho, and records the date of the catastrophe.* * * The inscription runs :—

'TOT GEDACTENIS VAN FRANCINA VAN REEDE LUF * * MYDREGT DESEN A°, 1687 24 APRIL OPGEREGET.'

"The modern town of Trincomalee is built on the neck of a bold peninsula, which stretches between the inner and outer harbours, rising, at its southern extremity, into lofty precipices covered to their summits with luxuriant forests. It is strengthened, at the narrow entrance of the inner harbour, by the batteries of Fort Ostenburg, rising one above another for the defence of the port and arsenal. A huge rock to seaward has been surmounted by the works of Fort Frederick."

BATTICALOA AND KALKUDA BAY.

The difficulties attending communication with Batticaloa, the capital of the Eastern Province, are certainly very real and considerable. We made the roadstead with the *Lady Gordon* in the early morning. The curiously-shaped hills—Gunner's Quoin, Friar's Hood, or Baron's Cap—had one or other been rising into prominence out of the eastern low-country as the sun came out and we approached the coast. A dozen miles north of our destination, Captain Whitley pointed out "Kalkuda Bay," the one hope of the district as a harbour, of which more anon. We anchored not far from the coast in a direct line, but out of sight of any town, the bar and the breakwater with a long line of lake or river fringed with coconut palms alone indicating the direction of the capital. Our visit was in one of the most favourable months of the year (the end of August) and we landed in the local "lifeboat" on a very mild morning, and yet the tossing was considerable, while the way in which the cargo boats "shipped seas," as they neared and crossed "the bar," gave us a vivid idea of the risks that must be run in the stormy weather, and at all times when the north-east monsoon is blowing right on to the coast. Indeed another passenger boat, not so buoyant as our cork-lined one, although well manned, could not pass in without a tossing and "watering" more lively probably than enjoyable. Kalkuda Bay is to have a fair trial given to it, and Captain Donnan sees no reason why it should not be found quite safe and sheltered for landing and shipping operations, there being a considerable indentation about a mile long from Vendeloos Point, and the only risk being from some rocks, which will, of course, be buoyed off.

The contrast between the rough tumbling sea outside and the placid

waters of the lake after crossing the Batticaloa bar was very striking. The backwater here forms a noble expanse of water not simply up to Batticaloa (the town of the muddy lake), but for twenty miles beyond into the heart of the great agricultural, rice-growing district. A proposal to run a steamboat on this backwater has taken shape, and seems not only to be possible, but most promising financially.

Our drive from the landing place inside the bar carried us for some distance by the side of the lagoon, fringed on both sides with cocopalms, and backed at a distance by the walls of the Batticaloa fort. Diverging from the water's edge we turned inland by a road which in its smoothness and surroundings reminded us of the outermost borders of the Cinnamon Gardens, Colombo—only there was no cinnamon visible. We were in reality driving through the northern or Katumunai suburb of the town, and a series of roads intersecting low jungle and garden grounds have been planned and carried out by Mr. Allanson Bailey and his successor Mr. Elliott. Very soon we passed from this quarter across one of the branches of the lake into the town proper, noting a busy but orderly and clean bazaar, before rounding in front of the old Dutch fort, and on to the fashionable esplanade with its row of residences and offices—Wesleyan Mission quarters, boarding school, chapel, Jubilee Hall, Post and Telegraph establishment (always a centre of intelligent obliging officers), District Judge's quarters, and so on to the Residency, a spacious building in extensive grounds shaded by umbrageous trees. All these residences and offices face the lake, while beyond stretches the palm-covered peninsula and farther out the Bay of Bengal.

The Tamils seem to have been very early in possession of this part of the island, calling the settlement "Maticaloa" (from Mada-kalappu, the muddy lake), but five hundred years ago at least the district was considered a dependency of the Kingdom of Kandy. It did not stand very high in the list of titles of the King or "Emperor," which usually included Uva, Kotte, Jejjapstam and Trincomalee as "Principalities," but put Batticaloa down as an Earldom: thus the list ran:—"Prince of Trincomalee, Earl of Cottiaar and Batticaloa." Nevertheless, Batticaloa very early became an object of conquest, and the Portuguese took the place and built a fort in violation of their treaty with the King of Kandy. This fort was a poor affair, however, and was quickly taken and levelled by the Dutch, who on the same little island, Puliyantivu,—the island of tamarinds—erected a grim quadrangular stronghold which is (after 200 years) still standing, though the surrounding ditch, described 40 years ago as swarming with crocodiles, seems now to be filled up. The esplanade between the fort (now utilised for the kachcheri and other public offices) and the Residency was once a regularly laid-out garden after the Dutch fashion with a reservoir in the centre full of tortoises and small fish. Now, this is the general resort of the young people of the town, affording room for cricket-pitch and tennis ground, while one portion has been walled off as a neat little cemetery. The most conspicuous object there at present is a monument to the late Mr. Jonathan Crowther Proctor—a self-made Tamil who rose to an influential position. It bears the following inscription:—

Not gone from memory,
Not gone from love,
But gone to the shining hosts above;
Mid cherubim there he waits his wife.
Who will fly to him from the woes of this life.

A witty public officer, who shall be nameless, is credited with disposing

of a rather too eager capitalist—who, although well stricken in years, would fain be purchaser of every bit of desirable Crown land offered for sale—by assuring him one day that there was a very desirable lot in the market which he should not fail to buy.—“Where sir, where, that I may go and see it?” “A most suitable piece, and just the thing for you, Mr. ———.” “Thank you, sir—I will look after it at once—where is it?” “IN THE CEMETERY, Mr. ——— !” (Tableau—a collapse !)

To turn back to the Dutch, their Batticaloa fort must have been in a position dear to their hearts. Indeed the water-and-canal-loving Hollanders could surely find no such delightful district in Ceylon as that before them here—presenting as it does a series of backwaters affording inland water communication for twenty and thirty miles along the coast, with fertile islands and flat expanses certain to reward the cultivator. This part of the coast was undoubtedly after their own taste, and they made a great deal of it, as several other remains besides the fort indicate. We read that the first Dutch ship seen in Ceylon cast anchor off Batticaloa on May 30th, 1602—*La Brebis*, commanded by Admiral Spilberg,* the object being “to purchase cinnamon.” Up to and well within the British era, “cinnamon” was the one great attraction to traders and invaders of Lanka. As Baldaus well and quaintly puts it, cinnamon has always been “the Helen or bride of contest” whose exclusive possession was disputed in turn by every European invader. Now there can be no doubt that cinnamon in those far-away back days must have been grown freely in the Batticaloa district ; but although the white peculiar silicious sand which we associate with our cinnamon gardens in the west was visible in many places, we could nowhere observe the shrub itself, nor hear of its existence. In answer to our enquiries, indeed, the intelligent old Kachcheri Mudaliyar declared he had never seen nor heard of cinnamon growing in the Batticaloa district !

Whatever may be said of other parts of the island, and especially the north-central divisions, there can be little doubt that never in history was the Batticaloa district so populous or prosperous as in the British era, and notably since the days of Sir Henry Ward and Mr. W. Birch. The revenue district covers 2,600 square miles ; but by far the larger portion of this is composed of what has always been jungle or open park country—suited for hunting rather than occupation, save by Veddas. The population, now perhaps 120,000, is nearly all found in the rich agricultural district along the coast, while the town has about 7,000 people within its Local Board bounds.

Batticaloa has long been famous for its cotton spinning and weaving industry, and it is interesting to learn that the Wellawatta Mills drew several useful handicraftsmen from this eastern town on commencing work. But a remnant still remain to carry on their old craft and manufacture. At one of the weaving establishments we found some fifteen people at work : three out of the five hand-looms were being handled in a long open shed. The treadle is sunk into the ground in a square opening in which the weaver sits, deftly plying his shuttle. Under another shed several women were employed winding the thread into balls or on to the shuttles, while at a third spot a boy was busily fixing his thread on sticks fixed in the ground so as to form a large

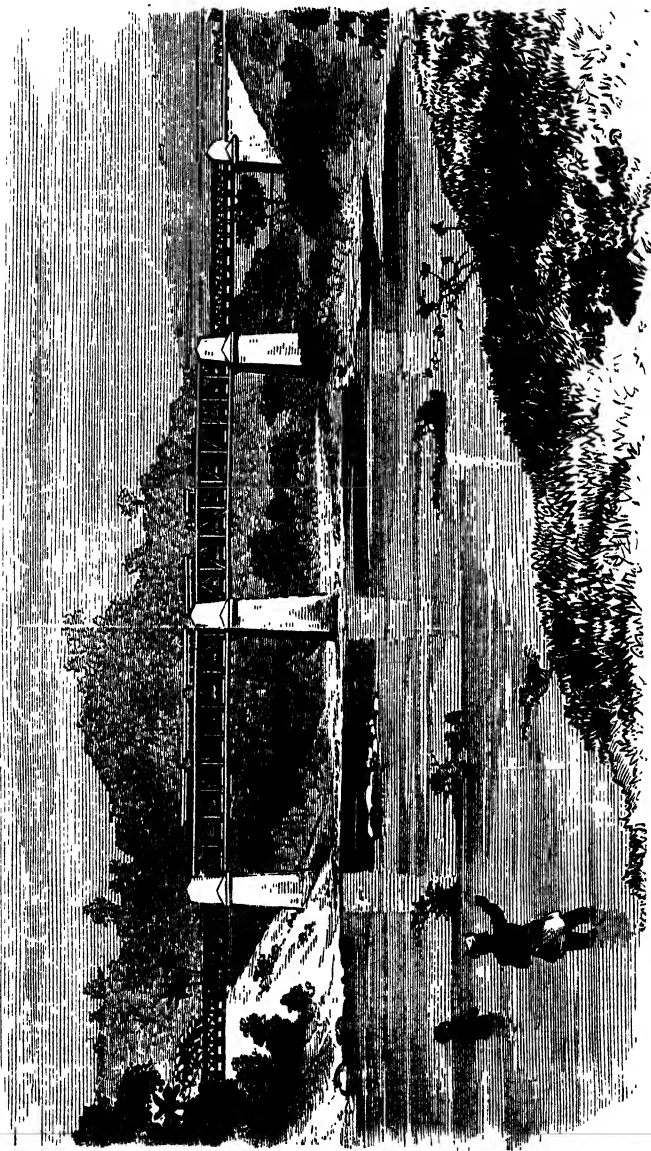
* The report of a Dutch admiral visiting Batticaloa in 1602 no doubt alarmed the Portuguese, and led them to look after the place, for their fortification dated from 1627 ; but did not last long, for in 1638 a Dutch fleet of six ships of war appeared and speedily disposed of the enemy and their erection.

horse-shoe 20 or 40 yards long. The threads were of alternate colours, systematically placed to form the warp of coloured comboy or sarong material. The threads would be sized or stiffened the next morning, and then transferred to the loom. From the manager we learnt that the weavers earned from 37½ to 50 cents per day according to their work; also that they had lately sent away six men to Colombo to work at the spinning and weaving mills, and could send plenty more if required. They have left off making godown towelling in Batticaloa, and confine themselves mostly to these cloths. So popular do these local manufactures continue in some parts of the island, that between Colombo and Galle there are villages with conspicuous notices telling the people that "Batticaloa cloths are sold here."

Leaving Batticaloa on a sunny afternoon to visit the great southern agricultural division of the district, our route lay across the ferry to the peninsula or island formed between the "gobb" or backwater and the Indian Ocean. This strip of land is some twenty miles in length by from one to two in breadth, and is now covered almost throughout its entire extent with the coconut palm and, save where extensive plantations have been formed under European auspices, is densely populated after the fashion of the most crowded section of native coconut gardens and villages on our western coast. On this peninsula and the strip of sea coast in continuance both on the north and south,—say over 60 miles in all from Valaichchina to Tirukkovil—is found by far the larger portion of the 120,000 people in the Batticaloa district, and the traffic with the capital in both passengers and produce is very considerable.

The Wesleyan Mission has multiplied its branches of Christian and educational work in the town, district, and over the Eastern Province generally. The Wesleyan Chapels, Boarding Schools, Jubilee Lecture Hall, Dispensary, ministered to by a medically-trained Christian lady, and ordinary vernacular schools in the town are very much in evidence, and the influence of the Mission among our Eastern population is most important.

Apart from noting the many villages passed, their order and cleanliness, and the evidence of progress in schools and cultivation, the chief attraction of the drive along the peninsula was its passage through extensive scenes of coconut cultivation. In the Batticaloa district altogether there are between 5,000 and 6,000 acres planted with the palm on regular plantations apart from the villagers' gardens, which must make up a good deal more. North of Batticaloa town along the coast, and for some distance inland, there are several plantations belonging to such pioneers as Mr. S. C. Monro—still to the front, we are glad to say—and the Atherton and Sortain families, the late Dr. Sortain having been one of the earliest to begin systematic planting in the Eastern Province, his work dating back to the early 'forties." The Taylor Brothers, Colonel Spencer, Dr. Orr, and Colonel, then Captain, Bolmain, are other names familiar in the days of old as planters or proprietors, and some of them still own property. Farther south in the direction we are now travelling we come on the plantations owned or managed by the late J. Gordon Cumming and by Messrs. Carey and O'Grady—Messrs. A. Nicol, Keir, Ouchterlony and Muckilligan being among those who adventured their capital in the district. We were glad to meet Mr. John Carey, who may now be said to be the patriarch among Batticaloa planters, for hale and active as we found him, Mr. Carey dates back to 1845 in the island, and all the time in this eastern lowlying district, with very few changes either to England or our hill-country during the interval. This speaks well for the healthfulness



RAILWAY BRIDGE OVER THE MAHAVELLIGANGA (GANGES OF PTOLEMY), PERADENIYA.

From a Photograph by J. Learton.

of the Batticaloa sea-coast region. We passed through the splendid Easter Seaton property managed by Mr. Carey for Mr. Ouchterlony. It covers 1,500 acres in all—extending across from the backwater lake to the Indian Ocean—of which 700 to 800 acres are under the palm.

We had now traversed the peninsula and arrived at a ferry crossing a branch of the lake separated from the sea by a narrow bank. In flood time, the waters naturally rose above the barrier, and salt and fresh water intermingled. To prevent this, as well as to supersede the old-fashioned ferry, a causeway has been constructed at this point ("Ontachchimadam"), costing R.30,000, which is in itself a work of art. It was nearly, but not quite, finished as we passed, and has since been opened. The importance of keeping the water bordering on cultivated fields sweet and fresh cannot be over-estimated.

Passing the great causeway, after a short drive on *terra firma*, we come to another arm of the lake almost debouching on the sea; and here again we have relics of the old Dutch times. The last crossing was Ontachchimadam, and here we are at a point where the first Dutch ships are said to have been seen off the coast, and if so we can quite enter into the delight of the Hollanders at the prospect of a country with a grand expanse of inland water or canals as far as the eye could reach. The backwaters or lake extend from this point twenty miles north, six to the south and ten inland.

The Dutch are said to have constructed a temporary fort near this point Kalaar, while the Portuguese held Batticaloa. The rest-house at at Kalaar is very pleasantly situated in front of the still waters of a branch of the big lake, while a little way farther out the eye rests on the deep blue of the Indian Ocean. This spot is twenty-five miles from Batticaloa by our route, and it may be worth putting down the oft-jaw-breaking names which distinguish the villages or stations along the road:—

Puthumotuvaram, Kalladi, Upodai, Manjantondosai, Kattankudiyiruppu, Palaimunai, Amedimunai, Thalunda, Puthukudiyiruppu, Karnakolen, Naripatanveli, Cheddipalaiyam, Tetataivu, Kalutanalia, Kaluyunuki, Eruvil.

Batticaloa can in fact compete with any part of the island in the length of its names. A favourite quartette runs as follows:—

From Puliyantivu
You go to Purikadavally,
To Illapuddychena,
To Teruchilansholei!

Our next stages, through large villages, ran Nilavanai, Pandirepu, and then we came to Kalmunai, a prosperous little town, with its Gansabawa or council, the occasional headquarters of the agent or magistrate, the fixed residence of the road officer of the district, of a doctor and hospital, of a European agent of the Wesleyan Mission, with church and schools. A branch road from the town runs inland to Kittengi ferry at the head of the lake, whence there is much traffic by boats to Batticaloa, the paddy being brought down from the irrigation district chiefly by a road on the opposite or Chavalkadai side.

Karativu coconut plantation is succeeded farther down the coast by two or three more properties—Vaddolodai, Nintur and Oluville—under Mr. O'Grady's care, while away twenty miles to the south is Tirukkoil, where Mr. Fanshawe of Madulsima holds a seaside property, partly planted with coconuts, and near to which is a temple which Sir Arthur

Gordon photographed. Karativu, from what we saw and learned that afternoon and next day, has many elements of interest in connection with its management. Elephants are regularly employed, chiefly in carting the nuts from the different fields to the home station, the cart-wheels having particularly wide tires to prevent them sinking in the sand; each cart carries 2,000 nuts. The nuts are cut off by a knife



PART OF GALLE HARBOUR.

From a Photograph by Barton.

attached to a long pole, the trees not being so high as many in the west of the island. The yield is from 40 to 50 nuts per tree per annum: one fine place gives an average of 55 nuts; 1,150 nuts go to a candy, against the usual allowance in the west of 1,200. Trees in favourable spots have been known to bear nuts in $4\frac{1}{2}$ years; but 7 to 10 years is near the average, and then under favourable circumstances. Careful and liberal cultivation is the rule, and the reclamation of marshy land by the erection

of large mounds of earth, on which the young coconut plants were inserted and carefully tended, was particularly interesting. Mr. O'Grady chiefly favours the Negapatam and Calcutta market with his crop of copra, and he had a ship off his beach, loading for the latter market, when we were there. In this case, the shipowner or master was purchasing on his own account, paying for each delivery of copra as it was weighed over on the spot. A better price is got for Batticaloa copra than for that of the Western Province, and it looks much cleaner and whiter, a fact that renders it popular with the Indian baboo consumers.



ENTRANCE TO QUEEN'S HOUSE, COLOMBO, WITH SIR EDWARD
BARNES' STATUE IN FOREGROUND.

From a Photograph by Slinn & Co.

Before plunging into the centre of the grand irrigation district westward of Karaittivu, let us return for a little to Kalmunai and consider the paddy-growing division in the neighbourhood of that flourishing station. First of all, however, we would point out that the population, including the agricultural folk,—the holders of the land as well as the large body of cultivators—cling for residence to the palm-covered sea-coast. The population in villages or scattered gardens runs all down within two miles of the sea-shore. Inland, even across the thousands of

acres of cultivated land, there is no appearance of townships or villages, and even the tops of palms or other fruit-trees with a few huts are very few and far between. Facing Kalmunai we have, in what may be called the lower section of the irrigated land, some 3,000 acres, all fit for paddy. We came on the scene, emerging from the hitherto palm-shaded road, on an afternoon which might be the close of a warm summer day in the old country, and as the wide expanse of field after field of level corn-country presented itself as far as the eye could reach, and the voices and songs of harvesters, gleaners, or the workers on the threshing-floor were wafted



A COLPETTY BUNGALOW, COLOMBO.

From a Photograph by Slinn & Co.

across to us, it seemed as if we had been suddenly transported away from Ceylon and tropical land altogether.

So far, we were merely skirting the great paddy-growing country at the close of a day's journey. Next morning we travelled fourteen miles, through the heart of some 20,000 acres of cultivated land, with scarcely an interruption in the constant succession of fields marked off by the boundary ridges common to paddy fields, the road occasionally passing over a culvert to allow the irrigation stream to pass from one side to the other.

It was not our good fortune to see the 20,000 acres tract we passed

through a picture of living green, as described by Sir Wm. Gregory in 1872, when he wrote :—

“ In the month of April 1879 I visited the rice-growing regions of the Eastern Province, which are the creation of the irrigation works carried out by Government. I never before saw such an unbroken sheet of



COLOMBO LAKE.
From a Photograph by Slinn & Co.

grain : save where some isolated trees, part of a recent forest, broke the view, the eye wandered over some 20,000 acres of green paddy. I saw, wherever I went, a sleek, vigorous, well-fed, and thoroughly healthy population. The great impetus to paddy cultivation in this province was given in 1857, when the restoration of the important irrigation scheme, of which the tanks of Irakkamam and Amparai are the most

prominent features, took place. Up to 1864 the lands under cultivation were 54,000 acres; the lands in cultivation in 1871 were 77,000 acres. The Crown lands to be additionally reclaimed under works already completed, or in course of completion, amount to 15,900 acres, equal to the support of 23,850 persons."

But standing near the same spot we could imagine how the country must look in a favourable season, with the green or golden corn waving uniformly for many miles on all sides, contrasting with the fringe of coconuts on the seabelt, hiding the cultivators' huts, and with the background of low jungle on the west, backed by such striking hills as Friar's Hood, the Baron's Cap, and on a clear day the outlying Uva ranges, while northwards the glistening backwaters showed the limits of the Kalmunai paddy fields, and far to the south similar rice fields extended far beyond our ken. To keep up with the steady extension of cultivation, which has gone on far beyond the original estimates, it is no wonder that the water supply in the tanks should occasionally get short, even in seasons when the rains have given their full contribution. How much more in a year of failure of monsoons! More storage tanks are no doubt required to ensure the steady supply year by year of the indispensable fertilising fluid.

Our drive of some fifteen miles from Karaitivu in a south-westerly direction through continuous paddy fields (then lying fallow) brought us to the series of anicuts—Sendapadi, Veereade and Kurune-kangi—so familiar in the history of our Eastern irrigation works, almost of historic interest in relation to the names of Captain Philpotts, R.E., Mr. Birch, and Sir Henry Ward. Apart from the engineering interest in the huge piles of masonry built across the streams leading from the Irakkamam and Ambarai tanks, we are here at the head, or the key, to the irrigation of all the far-extending district lying eastward and northward to Karaitivu, Kalmunai and Samanturai. At these anicuts, the precious water from the tanks is switched from the main current into rivulets running south, east, or north as may be required. There are guardians over these main distributing works, and there are irrigation and village vidanas, or minor headmen, to follow and regulate the distribution for each series of fields for many miles from the main source of supply.

In years when from 200,000 to 300,000 bushels of paddy are exported, besides the supply furnished to Batticaloa and other local towns and villages, the business and traffic, it will be seen, must be very considerable. [The largest export was 306,500 bushels in 1883, nearly all to Jaffna.] As many as 5,000 loaded carts pass out of this district in a busy season; most of such carts are altogether of wood—wheels, axles and all—and cost about R.18 each.

FROM BATTICALOA TO BADULLA.

The journey along the great eastern road from the sea coast at Batticaloa to the heart of the ancient Principality of Uva, albeit performed by bullock cart at the rate of twenty to twenty-four miles a day, does not offer very much to chronicle. There is the general impression left of the excellence of this comparatively lonely road, running for long distances through unbroken, unoccupied jungle; of the many well-constructed and even splendid bridges; of the convenient, well-found resthouses generally situated on some picturesque vantage



NUWABA ELIYA, SUMMIT OF PEDROTALLAGALLA IN THE BACKGROUND,
From a Photograph by Slinn & Co.

point, whence at noonday, eventide, or early morning, the outlook over jungle or chena, cultivated fields or mountain scenery, was ever attractive; of the long, steady pull from the low-country to Bibile, and the still steeper climb thence up one of the most beautiful of mountain passes in the island to Lunugala. We spent four days on the road so far, through most lovely country, the signs of man being few and far between; and though we heard talk of elephants being troublesome near Rukam and of other "wild beasts" possibly prowling about, we saw nothing stranger than gay jungle-cocks and their modest mates quietly feeding on the roadsides, shyly retreating under jungle shade as we approached, and occasional troops of monkeys whoo-ooping as they sprang from tree to tree. But it may be as well to run over the trip in a little detail.

Leaving Puliyantivu (the island of tamarinds) in the cool afternoon, we were kindly driven the first stage of ten miles, to Senkaladi. We soon lost sight of the town surrounded and sheltered by an ocean of foliage, but a branch of the lake which it is hoped to cut off from the brackish main portion ran alongside our road for several miles. I forgot to mention before, how one evening in town was partly devoted to an attempt to hear the far famed musical shells in the lake opposite the old Dutch fort. They are supposed to be heard best, like the faint notes of an *Æolian* harp, when the moon is at its full. We had moonlight, but not full moonlight, and whether from this cause, or more likely owing to too great a ripple on the water, our mission was unsuccessful—there was no more than the faintest resemblance to the touch of a Jew's harp heard that evening. The multitude of tiny notes which, at other times, are heard coming up from the water like the gentle thrills of a musical chord, or the vibrations of a glass when the rim is rubbed by a wet finger, did not gratify us that evening, and we had to retire with but a very faint idea of the reality.

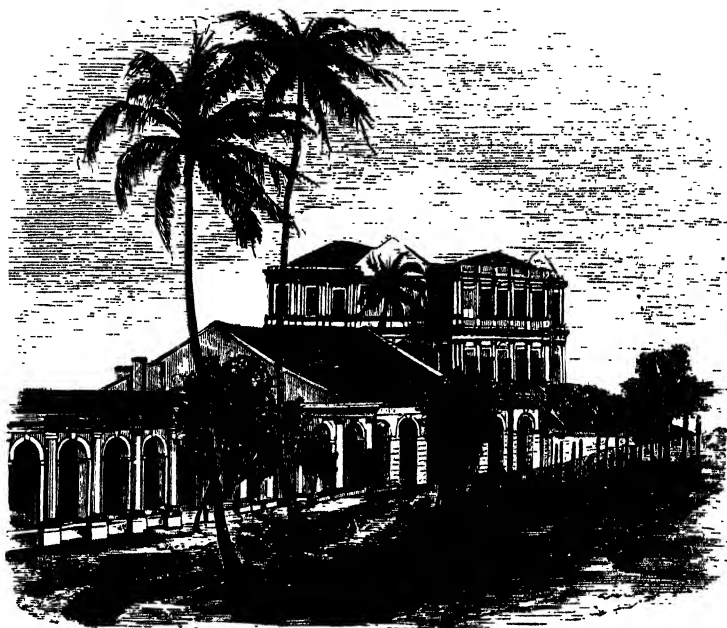
For several miles out from Batticaloa there is continuous cultivation of coconuts. Eravur is chiefly a Moormen village, and the centre of much industry. There are extensive coconut plantations along the roadside further on, some only a few years old, belonging to Mr. Atherton, I understood. The drier climate, no doubt, prevents such plantations being extended farther into the interior. And yet the splendid gardens of plantains and fields of cassava seen far up the road, shows that there is scope for experiment if not success in large fruit gardens.

Along this metaled road, as along every main road in the country, there are here and there settlements of Tamils—but chiefly of coolie immigrants from India—whose main occupation is breaking metal and the road maintenance, supervised by Jaffna overseers. Our stages along the road were as follows :—

FROM BATTICALOA.					Miles.
Sat.	23rd, Sengaladi (Evening)	...	...	...	10
Sun.	24th, Tumbalancholai A.M.	...	...	...	14
Sun.	24th, Mahacaya P.M.	...	...	...	12
Mon.	25th, Kalodai	...	...	...	10
Mon.	25th, Ekiriyanakumbura	...	...	...	10
Tues.	26th, Bibile	...	...	...	11
Tues.	26th, Lunugala	...	...	...	12

Everything looked green and pleasant in the neighbourhood of Rukam tank (twenty miles from Batticaloa), which had sufficient water to glisten in

the sun. Farther on we came on splendid expanses of land, some under cultivation with cassava and plantains, and nothing will make me believe that there is not room for a large and valuable extension of planting cultivation alongside this Batticaloa road. Seeing what tea is doing even under prolonged droughts, and moreover realising that profitable crops can be gathered in six months, even should the rest be flushless, I think experimental tea clearings between Toombelancholai and Bibile well worth trying, while of course from Bibile up to Lunugala there ought to be far less risk. No doubt, the trouble would be to tide



MOUNT LAVINIA, NEAR COLOMBO.

From a Photograph by Slinn & Co.

the young plants over the dry season, but with rich soil and judicious shading this might be managed.

At Ekiriyanakumbura, we are at the station where Captain Johnston and his gallant band in 1804 rested two days hoping to be joined by Colonel Maddison from Hambantota, but seeing or hearing nothing of him, he pushed on northwards *via* Alutgama and Medamahanuwara to Kandy. The resthouse here is 480 feet above the sea, while by the time we have got to Bibile, eleven miles farther on, we are 800 feet. This is an interesting point at the foot of the Madulsima range and the entrance to the Bintenna country, with hot springs and successful irrigation works in the neighbourhood.

PASSARA AND BADULLA.

There is no prettier resthouse in the country for situation and surroundings than that of Passara twelve miles from Badulla, elevation 2,920 feet above sea-level. Its verandahs are embowered in roses and creepers, and the outlook is unusually varied. The grand mountain range in front has given some of the heaviest coffee crops even borne in Ceylon, for the princely estate of Gonakelle is close by, with the certainty that it is to give its fortunate proprietors as handsome returns from tea as ever it yielded in coffee; and just over the shoulder is Mousagalle, which even now goes on giving good crops of coffee to Mr. C. B. Smith. On Gonakelle we found Mr. MacInnes (whose own fine property of Heathstock is not far away) giving the finishing touches to the grandly complete tea factory, after the model, I believe, of that of Nayabælde—both being as well planned and fitted up as any in the country; and the estate manager, Mr. J. J. Robinson, very proud, as well he might be, of his field of tea, especially that on "virgin" patana yielding even now up to 600 lb. of tea per acre. A journey over the present cart road to Badulla and Passara will easily show the Governor the absolute necessity of a new and level route at the back of the range if the railway is to profit by the extensive cultivation between Passara and Hewa Eliya. Six miles up and six miles down into the valley of Badulla bring us to the town engirdled by palms and other fruit and flowering trees, and now we are only 2,200 feet above the sea.

From whatever side it may be approached, Badulla presents a strikingly interesting and pretty appearance. It nestles in a well-wooded hollow, backed by the giant Namunakula range, with a cloud-capped peak, forest or coffee-clad hillsides, and every variety of feature as background and sides to the picture; but in another direction, Badulla, from its "Judge's Hill" and fort ramparts, looks down upon low-country well cultivated in field and garden. In respect of its grassy boulevards and charming little fort, Badulla is unique among Ceylon towns: it most resembles Kandy, but is far cooler, because better shaded and higher. Even in the bazaars there is the relief of some shrubbery or lofty umbrageous trees for the eye to rest upon, while the bungalows are all well shaded.

The Experimental and Ornamental Gardens cannot fail to have a word of commendation, albeit they are still in their infancy, and Mr. Nock would say how much more could be done, were there money to spare even on the five acres allotted to them; and again the adjacent race-course, described as the finest for situation, and of its size the most convenient, of any in the island, with a handsome permanent grand stand. In the old cemetery, in the centre of the town, there are some particularly interesting memorial tombstones of British military and civil officers and their wives,* who died here in the very early days, and the grave and dedication stone which the bo-tree has carried away up among its branches will be especially noted. The little Memorial Church was erected by the Kandyan chiefs and minor headmen as a token of their affection and respect for Major Roger, who so long administered the district, and was killed by lightning at Haputale pass.

Badulla and Uva, so far behind the rest of the central and western portion of the island in respect of educational and indeed evangelical work, has entered on a new era of progress in both respects since the

* Among these are Mrs. Nicholson and Mrs. Wilson, the wife of the Assistant Agent who fell a victim to the rebels in October 1817.

Rev. S. Langdon—"the apostle of Uva"—established his Mission and schools—Industrial and Reformatory—in the centre of the villages filling so many valleys in the Uva amphitheatre. In Badulla town itself there is a most interesting branch of the work in the Orphanage and Schools and itinerating operations, directed by or under the care of Misses Cook, Lowl and Cotton.

Now cacao and some cinchona and Liberian coffee were the products which met our eye on our journey up the road in September last. At the eighth mile from Badulla, we also came on a little cinchona estate near Kalmodara village, where the tavalam or travellers' path leads off to Passara. Young native coffee was next noted, and also some old abandoned patches, but it must be confessed that this Bandarawela road climbing up with steep patanas on each side is a rather monotonous, uninteresting one, unless we look back and enjoy the grand range of mountains towering over Badulla and Spring Valley with the summit of Namunakulakanda far up in the clouds, until we are inclined to think of it as

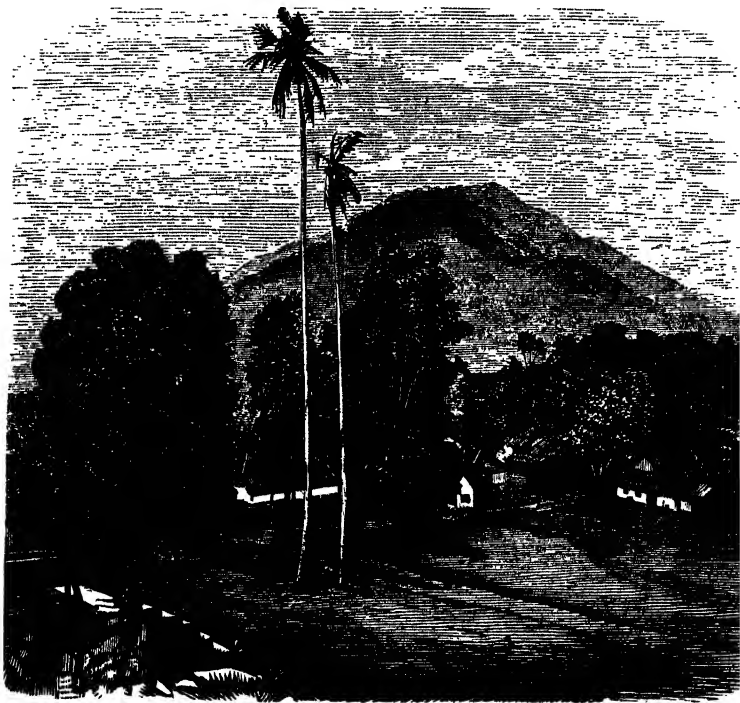
"The monarch of mountains;
We crowned him long ago."

Another interest is roused, however, as we come on evidences of the new road to Ella. The village of Bandarawela has some importance in itself: but it must become a very different place by-and-by under railway influences, although the grand thing about a railway terminus in a well-chosen spot in this neighbourhood is that there is so wide an expanse of Crown patanas, with a glorious climate for the future town—perhaps capital of the province. We found tea, coffee and cinchona all occupying the attention of the villagers, and planting operations were by no means neglected. The new resthouse at Bandarawela is situated in a very delightful position, commanding a splendid view over the country, and in a climate and surrounded by an atmosphere that can only be compared to champagne, so exhilarating are its effects! We speak of the "new" resthouse, and yet it has been built thirteen years. Our experience of the old one was not gained in 1864, but in 1872, when in company with an estate "Visiting Agent" ("Old Colonist.") and a Colombo merchant), a brother of Captain Donnan, then partner in the leading house of C. Shand & Co.), we made the round of Rakwana (our trip commenced at Galle through Morawaka), Balangoda, Haputale, Badulla to Cannaverella, and on to Nuwara Eliya and Dimbula. We arrived late in the afternoon from the eastern end of Haputale, riding up the estates and over the patanas to Bandarawela resthouse, hungry and tired; but there was nothing to be got for an hour or so, and even then only very poor, tough "moorgie" curried or stewed with pepper-water; and the grand scenery and climate had to afford compensation. As we lay on the grass facing the sunset over Totapala, we talked softly but earnestly of the day when a railway locomotive would be seen entering Uva; and the writer then and there first formed the resolution to take up the question of "Railway Extension from Nawalapitiya to Uva," to leave no stone unturned to get the planters and natives to unite by memorial and petition until the Government were moved. What has happened since, during these long tedious eighteen years, is a matter of history. But it is a kind of "poetic justice" that the railway should be completed next year not simply to Haputale pass, but on to the neighbourhood of the "classic ground" (?) facing the old Bandarawela resthouse.

It is interesting to refer to such reminiscences of the past, and at this

time there is special interest in quoting from a letter of the "merchant" (of the party of three) now in Belfast addressed to the "planter," now in Aberdeen, a few months ago:—

"I often think of that very pleasant ride which we three had eighteen years ago, and I can well recollect how enthusiastically impressed Ferguson was with the Bandarawela district, and how energetically he followed up the subject of railway extension in his paper; and the most wonderful thing is that even after the lapse of eighteen years it should



BADULLA, UVA.

From a Photograph by Lieut. R. W. Stewart, R.E.

now be actually accomplished, considering the time that Ceylon has passed through in the interval. Nothing could give me greater pleasure than to return to the land of our 'dreams,' and to find them realities, but I cannot yet see my way. But who knows?"

Referring to what we said of Bandarawela and the neighbourhood in 1872, we quote as follows:—

BANDARAWELA.—This village is distant 118 miles from Colombo on the Ratnapura and Badulla road, and 18 miles from the latter town. Situated at an elevation of 3,800 feet above sea level, it stands within easy reach of the highest portion of the Happotella range, which rises

2,000 feet more. It is the centre of a considerable extent of native cultivation, and a walk over the undulating patenas in the neighbourhood enabled us more fully to understand the high appreciation which has always been felt of the climate in this portion of Ouvah. Sir Hercules Robinson is said to have expressed in high terms his praise of the climate, of the beauty of the open prospect towards Hakgalla, Oodapusi-lawa and Naminacooly, from some of the knolls near the spot, and of the splendid sites, with "ample room and verge enough," afforded for residences in the neighbourhood. Remember that with the drier and more equable climate of Ouvah, an elevation of 3,800 feet in the midst of open grassy uplands is very different on this side from what it is on the other side of the Nuwara Eliya mountains. We felt all the coolness and exuberance of spirit here which are usually felt (*on a fine day*) on the Lindoolas in Dimboola, or the Bogawantalawa in Dickoya at an elevation over a thousand feet higher. When the railway traverses Ouvah, there will be few spots which will be visited with greater pleasure by troops of holiday seekers from Colombo, and perhaps by more permanent visitors, than the fine expanse of country between Wilson's bungalow and Bandarawella. The attractions offered by grassy hills and dales, varied by highly cultivated valleys and picturesque Kandyan villages, by gently meandering streams and roaring torrents, and even by considerable pools of lakes (frequented by snipe and bittern, as the neighbouring copse is by the timid hare), will all be found here in abundance. After disturbing both hare and snipe in the course of our afternoon walk, as we stretched ourselves on the velvety grass and looked sunward towards the now crimsoned peaks of Kirigalpotta and Totapella, who could blame us for thinking of the future and talking to each other softly of the hope of revisiting the place in the railway era to come?

The Haputale pass looks very different now to what it did 27 years ago, at the time of Sir Hercules Robinson's first visit. With waving forest on each side,—

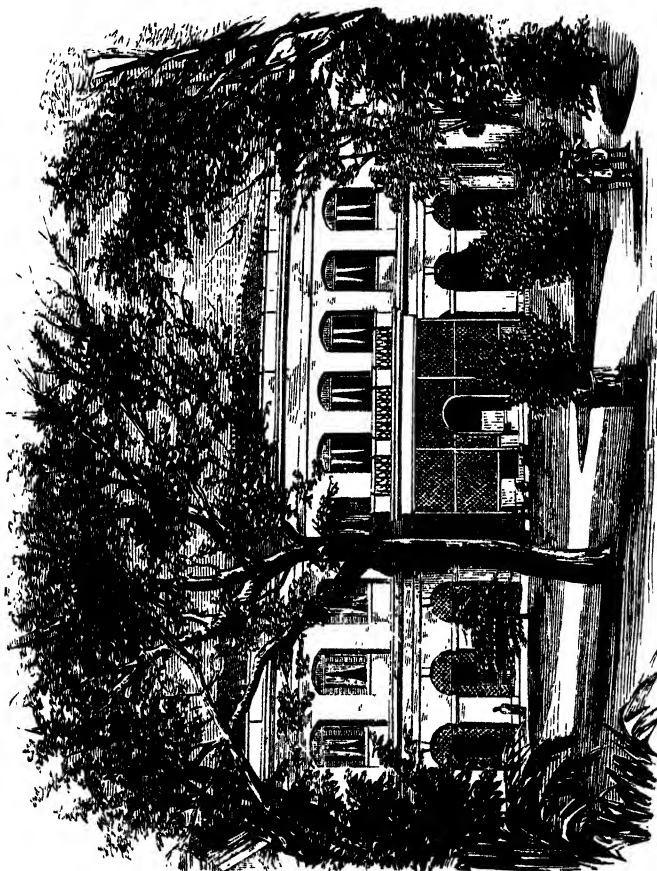
"A pillar'd shade
High over-arch'd, and echoing walks between,"

the ride up or down the pass, with peeps at cultivated plantations in pristine vigour, at the low-country and the coast, was a very great treat in those days of old. Now the forest is gone all the way from Haldumulla to Haputale, and indeed the only bit of forest belonging to the Crown in the whole district consists of some fifty acres just above the pass on which the Forest Department has begun to try its hands by way of experiment. The extraordinary thing to most of the planters is that instead of meddling with this forest by cutting out and trying clearings of new trees, our foresters do not first go in for an experiment on a really considerable and satisfactory scale in tree-growing on the patenas. At the pass the extensive stores and engineering establishment of Messrs. Walker & Greig give evidence of life and business. The little church in its quiet corner, and the wayside post office, give finish to the little town which will ere long have new life thrown into it by daily railway trains.

HAPPY VALLEY MISSION AND INDUSTRIAL SCHOOL.

We turn aside from the Haputale pass to have a look at the "Happy Valley" Mission establishment, the Industrial School and Workshop; the Reformatory and its cultivated gardens, fields and plantations. There can be no question of the reality of the work as regards the "city

Arabs" located here in one of the finest climates in the world, taught and trained and drilled after the most methodical fashion; and it will not be the fault of the superintendent and staff, especially of Mr. Braithwaite, if these boys, chiefly from Colombo and the low-country, do not become very useful members of society hereafter, with a plain education, but a good practical knowledge as farriers or smiths, carpenters, shoemakers, gardeners, cultivators of fields, etc. A shoemaker instructor



A MERCHANT'S SEA-SIDE MANSION, MUTWALL, COLOMBO.

From a Photograph by Slinn & Co.

and an agricultural instructor are on the staff, as also a medical assistant who visits the native villages for many miles round and finds much need for his services. Mr. and Mrs. Braithwaite, with the aid of the Reformatory lads, are likely to have "a model farm" to show the Governor when His Excellency does go their way, with a good dairy, poultry yard, piggery, fields of vegetables and corn—perhaps some paddy—besides coffee, tea, cinchona, and, no doubt, timber trees. All this on the patanas

in the centre of the grand Uva amphitheatre spreading from New Galway to Badulla and from Udapussellawa to Haputale.

We enter on the railway extension works. To get a clear understanding of the whole work, it may be as well to mention that from Nannu-oya to Haputale there are $24\frac{1}{2}$ miles under construction, and that these miles include such continuous heavy work in cuttings, embankments, culverts, viaducts, tunnels, etc., as render the section one of the most important undertakings for its length ever taken up in the East. In other respects this extension may be said to be unique. For a combination of tropical upland, mountainous and lowland, pastoral and wooded scenery, for a succession of deep gorges and high mountain peaks with streams dashing along in cataract, waterfall or quiet pool-like stretches, there will be few railway drives in the world to compare with the Uva line.

The first part of the line starting from what will be the Haputale station is comparatively easy. But then we have an interminable side-long jungle, a breakneck precipice or impassable dangerous gorges. We are now below the castellated peak of Beragala and the Batgoda trig point, several miles up the line from Haputale. Here, now, we enjoy the splendid panorama spread before us in the valleys of Uva stretching far below.

At the fifth mile we came on a series of heavy cuttings, big banks and extensive culverts, such as indicated a very large amount of work to get through. The line in this part runs round one or two sequestered valleys, the approaches to which generally on rocky ground make "sensation corners," but these are of small account as compared with the "Horse-Shoe Gorge" farther on. Here, indeed, we are at big works on a grand, difficult, and expensive scale. This bit of line for picturesque outlook will, in our opinion, compare with any on the great American railways. We were reminded of a show place in the Susquehannah valley at one point; and again the American "Horse Shoe" in the Rockies was brought to our recollection, but nowhere across the Western continent did we see anything so attractive and interesting as the outlook from this winding Uva line. California alone presented a parallel on some parts of its mountain railways.

After a fashion we have disposed of the section between the Haputale (temporary) terminus 4,650 feet above sea level and the Idulgashena station—a distance of five miles, the rise in altitude bringing us to 5,196 feet above sea level. The top of Idulgashena peak close by is 5,800 feet; from the ridge close by the station, a splendid view over the low country to the sea at Dondra, Hambantota and the Basses lighthouse can be got. The work so far has been chiefly distinguished by heavy rock and earth cuttings and embankments, some very ticklish sidelong work above precipices, with culverts. It is on the upper side of Idulgashena when we can get into the country of "gorges" that the tunnels began to be abundant. There are altogether as many as seventeen to eighteen tunnels on this Nannu-oya-Haputale extension, of which one is known as the "baby" tunnel, from its comparatively easy management.

Leaving this first series of tunnels we round on what seems no ordinary curve into the Horse-Shoe gorge, at the head of which there is to be an iron-girder bridge: no easy matter for any but steady-headed, sure-footed folk to creep round on the narrow roadway above steep precipices where we passed.

We were now well inside the Ohiya valley, to the side of which this most picturesque Uva railway line clings, running in and out of the

several gorges which mark the entrance of as many streams, until we came to a grand crossing by a big bridge whose piers gave evidence of height. This is to run over a considerable cataract, with great masses of rock above and below in the forest. Indeed we can only describe our course as a succession of tunnels, culverts, viaducts or iron-girder bridges, with a comparatively limited extent of earthworks, until we got higher up and round the valley, where we come on an embankment of no mean proportions. The shades of evening had begun to fall before we had ridden up to the vicinity of the great tunnel through the dividing ridge, the "bore" which has been described as being favoured with the south-west monsoon blowing in at the one end and the north-east at the other. All we can say is that the first view of the province of Uva to the railway travellers as their train emerges from this tunnel carrying them into new territory and a new climate will be varied and beautiful in the extreme. The first burst of travellers from the west to the east—from summit level through the dividing ridge tunnel above the Ohiya valley, with the grand *coup d'œil* of forest-clad mountainsides, rolling patanas, and the Haputale range with plantations far ahead, is sure to be remembered in their experience as unique and grand beyond all precedent.

The little railway town of Pattipolla, on summit level, is close to the junction of a number of roads—to Horton Plains, Nuwara Eliya, to Uva or to Dimbula, while the Ambawela station and the path to the New Galway district and Wilson's bungalow is not far off. It will be quite necessary to construct a cart road to enable not only the estate produce but native traffic to reach the station specially fixed on for this division of Uva.

Returning from Ambawela, we may remark that a good deal of trouble is encountered close by in railway construction from swampy ground, and after passing through forest, we come close by Pattipola on the cutting and tunnel—if such a term can be applied in contrast with the great railway works—by which the Kandyan of old directed the stream running down the side of Totapala, which otherwise would have passed into Dimbula, towards Uva, so as to irrigate their paddy fields in the valleys far below. The Pattipola-ela (irrigation channel) is crossed by the railway on a five-feet arch. The irrigation tunnel is fifty feet below the surface, while the diversion was effected by a masonry dam, and Mr. Waring thinks well of the plan and of the way in which it was carried out.

We are now well into the division—from the summit level to Nanu-oya—with magnificent outlook over Dimbula, the sylvan scenes on the plateaux, the many streams, cataracts, and waterfalls.

TRIP INTO THE VEDDAH COUNTRY.

Starting from Kandy, with its lovely lake surrounded by hills thickly covered with foliage, I took the mail coach which leaves the Queen's Hotel half an hour after noon as far as Teldeniya, thus getting a good view in the early stage of the journey of the Mahavila-ganga, the largest river Ceylon can boast of, and which has to be crossed on the way to Teldeniya resthouse, which is reached after a picturesque drive of twelve miles through beautiful tropical scenery. At Teldeniya resthouse I stayed the night, being very comfortably put up, and next morning at daybreak I set off, with my tent, kit, and provisions stowed away in a bullock-cart, away past the village of Urugalla up into higher country, the road being a steady ascent all the way up from Teldeniya. Arrived at the summit

of the hill the more trying part of the journey begins, as the road is here left on the right, and one has to set out across country in the care of a guide, coolies carrying the baggage. I was fortunately circumstanced, for Mr. Thorburn, the Assistant Government Agent at Kandy, had very kindly sent on a peon to the Ratemahatmeya at Urugalla, with the result that when I reached there I found that the headman had an elephant in waiting to bear me the rest of the journey. By means of zigzag paths, through a country in which waterfalls and gently undulating lands in the foreground, and high mountains away in the distance, offered constant variety of scene, we came to the pass of Calpadihila, in the heart of a fine jungle country, and through it to the summit of Belungala, from which a magnificent view of the whole of the Uva province and the Terai country is obtained, together with a glimpse of the village of Bintenne with its old Buddhist temple, the Mahavilaganga, the irrigation tanks, and the Veddah country beyond. Six miles more of traversing by zigzag paths brought me to Bintenne, just before reaching the resthouse, at which place I noticed the first traces of a wild elephant, and the natives informed me that the spoor was that of a notorious rogue tusker which already has had many bullets put in its hide by sportsmen, but which has not yet become a trophy. The resthouse, which nestles in a covert of plantain trees, makes a very acceptable halting-place after the twenty-eight miles' journey from Teldeniya, and I spent the night here. Next morning at daybreak I resumed the journey, taking with me fresh coolies and a jungle guide, named Vitharama, and an ex-korale of the district, Punchi Banda, who knows the locality well. Crossing the river, a journey of twenty miles through much the same surroundings as the previous day brought me to the Veddah country. Up to this time my experiences had been of the pleasantest description. This month (March) is the best in the whole year for jungle travelling, and everything looked at its best. The trees were a rich green; while fields of blue forget-me-nots and orchids and convolvuli in full bloom, with wild orange blossom scenting the air, and gorgeous butterflies fluttering here and there, made up a charming sylvan scene. The path lay for a long way through a stream in which our party marched knee-deep, groping their way in true jungle-trackers' fashion, one foot in front of the other. In the sand near the stream the prints of leopards, bears, and deer could be seen, while that elephants had been there but a little while previously and had moved off at our approach was very apparent. Arriving at Beligalla, I was in the heart of the Rock Veddah country, and I sent out jungle-trackers to find some, a work of difficulty, as they are a nomadic race who have to be traced out in much the same way as a sportsman seeks out his game. These men are as primitive as ever, and still live wild; their food being the honey they collect and the deer they bring down by means of their bows and arrows, and their covering at night the hollow trunk of some tree, or a cave. Altogether there are about a hundred in the jungle, including men, women, and children from Dambara, Bulugahaladana, and Kunarthumulla. I found after some search three men, two women, and three children. Their hair hung loosely round their heads; they wore little or no dress, and their voices were curious—more like a bark than anything else. Their language is entirely their own. Their only weapons were the axe and the bow and arrow. They gave me some honey-comb and venison prepared in honey, together with berries from the trees they live on, and, altogether, I was very much interested with all I saw concerning them. On my return journey I travelled the distance by moonlight to avoid the heat of the sun, and found this very pleasant,

with myriads of fireflies lighting our progress. The nights are cold, and when we halted at night we found it necessary to light large fires to keep warm. I have put together these few experiences to show how easily visitors who care to break their journey and proceed on in the next steamer can get a glimpse of real jungle life, and even indulge their fancy for sport if such they have, and they will find the trip one that will well repay them in point of interest and novelty.

It has the longest tunnel, the highest and longest viaduct, and biggest embankment and cutting on the line. An embankment requiring 60,000 cubic yards of stuff over a 250 feet culvert is no joke. The viaduct again will be a splendid piece of work 260 feet long, with three piers 80 feet high.

NANU-OYA-HAPUTALE RAILWAY EXTENSION.

(From Official Reports.)

Stations.	Distance apart measured from centre to centre of station Grounds.		Average Gradient.
	Miles.	Chains.	
Nanu-oya to Ambawela	... 8	76.17	... 1 in 67.69 rising.
Ambawela to Pattipola summit	... 2	53.12	... 1 in 62.26 rising.
Pattipola to Idulgashena	... 9	13.72	... 1 in 48.26 falling.
Idulgashena to Haputale	... 4	40.13	... 1 in 47.97 falling.
Total	25	23.14	

NANU-OYA TO HAPUTALE.

(Compiled in "Observer" Office.)

Stations.	Distance from Colombo. Miles.	Altitude above Sea-level. Feet.	Miles between Stations, about.
Nanu-oya (? "bathing stream")	... 128½	5,291	—
Ambawela (the mango field) or Elk-Plain Station	... 137½	5,995	9
Pattipola (cattle fold) or Sum- mit Station	... 140	6,219	2½
Idulgashena (chena of the Idul trees)	... 149½	5,193	9½
Haleh ta utpe (Sapu Plain)	... 153½	4,695	4½
Bandarawela (Banda's field)	... 157½	4,000	3¾
			29

NANU-OYA TO HAPUTALE: HEAVY WORKS.

(Approximate list.)

Nanu-oya.	No. of Tunnels.	Viaducts.	Big Embank- ments.	Big Iron Bridges.
To Ambawela	... 2	1	3	2
To Pattipola	... 0	0	1	0
To Idulgashena	... 16	2	10	4
To Haputale	... 0	0	4	0
To Bandarawela	... 0	0	2	0
	18	3	20	6

APPENDIX VI.

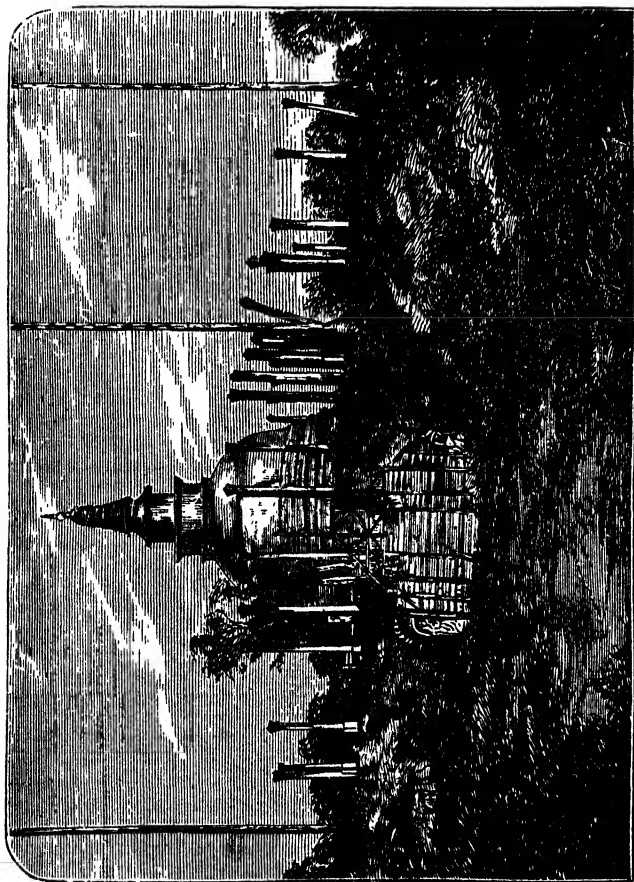
ANURADHAPURA AND THE NORTH-CENTRAL PROVINCE; WITH NOTICES OF THE ARCHÆOLOGICAL SURVEY AND IRRIGATION WORKS.

(By J. FERGUSON. WRITTEN IN 1891.)

ANURADHAPURA AND THE ARCHÆOLOGICAL SURVEY.

So far from being disappointed on our first introduction to the great works and interminable ruins which mark the site of the ancient northern capital of Ceylon, we can only say that our anticipations in respect of magnitude, extent, variety and interest were far more than realised. "The half had not been told us," or rather past writers seem to us to have failed to do justice to their subject. True, nothing can add to the astonishing calculations entered into by Emerson Tennent with reference to the magnitude and capacity of the great dagabas, and the total area probably covered by the city in its time of prosperity thirteen hundred years ago and more. Nor would it be easy to improve on the brilliant word-painting and glowing imagery of Spence Hardy in his descriptions of Anuradhapura as he saw it ruined and jungle-covered, in contrast with his realisations of its ancient grandeur. Nevertheless, these and other writers now appear to us to have failed to expatiate on, if indeed they appreciated the opportunity presented, if means were made available, for tracing out and almost resuscitating great portions of the ancient city. The dagabas are wonderful landmarks in themselves, and the man is surely to be pitied who can gaze on the trec-clad "Jetawanarama," with its pinnacle of dark-brown brick, recalling so many ancient Roman towers, without admiration of its picturesque and massive beauty, and intense interest in historical facts that here is the lasting memorial of that Sinhalese king (Maha Sen) who, 1,600 years ago, left his mark so widely on the land, crowning his irrigation schemes by the construction of the great tank of Minneri, twenty miles in circumference. All the great dagabas have a similar historical connection and story of interest, even if, in their present forms, they fail to rival the "hill of victory" in "glory of outline." No doubt it is open to the modern critic to find fault with the work of restoration, or rather conservation, which has been done on "Abhayagiri"; but who that has climbed and stood on the pinnacle of what remains of this "mountain of safety"—over 2,000 years old—to enjoy the wonderful panorama stretching from below his feet, can but regard with satisfaction the preservation from absolute destruction of so striking a feature of the old world as this Sinhalese city of the plain? True the height of Abhayagiri is now only 230 feet against the

estimate of over 400 feet for its original altitude; but even at the former elevation—nearly double that of the Colombo clock tower,—the command afforded of the modern town, the jungle-covered ancient city, the tanks filled and empty, and the far-stretching horizon of forest backed by detached hill ranges enabled us, with the aid of most competent guides,

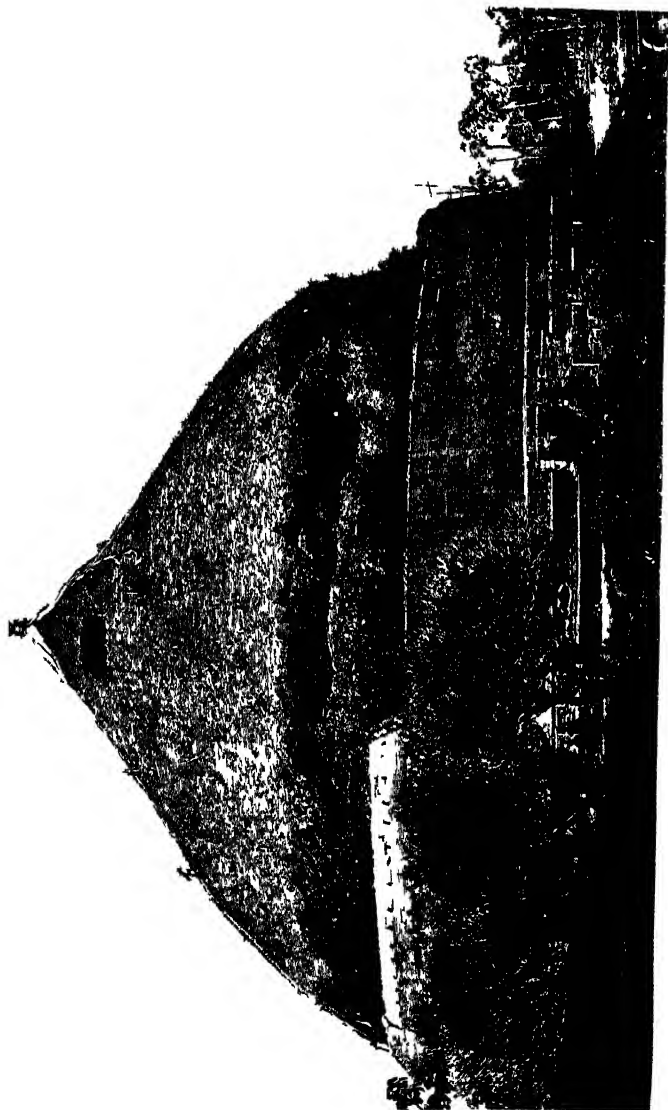


RUINS OF THE THUPARAMA DAGOBA, ANURADHAPURA.

From a Photograph by R. H. T. Morris.

such as favoured us, to acquire understanding of past and present far beyond what any printed pages can ever afford.

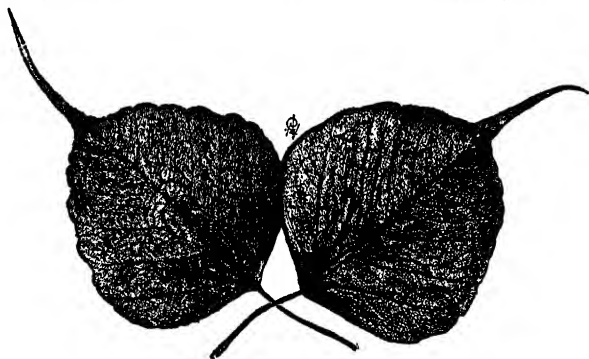
It is also evident that Emerson Tennent's big book (latest edition 1860), is quite out of date when we consider what has been brought to light in Anuradhapura during the last fifteen years; and even Burrows, whose "Archæological Report and Handbook" go back some five years, is now falling behind. Further exploration and excavation cannot fail to meet with a rich reward throughout the area covered by both the "sacred"



RUINS OF THE RUANWELI DAGOBA, ANURADHAPURA.
From Engraving in Scribner's Magazine.

and "secular" cities, and the new departure taken last year at the instance of Sir Arthur Gordon by the appointment of so competent an officer as Mr. H. C. P. Bell, as archaeological commissioner, could not fail of important results, even though that officer has been most inadequately supplied with the means to carry on his operations. Very fortunate, however, Mr. Bell has been in securing the cordial co-operation of the present Government agent, Mr. Ievers, who in the past was instrumental in bringing many very interesting ruins to light; and of Mr. A. Murray, provincial engineer. Under the latter's direction, there has been carried out the conservation of King Dutugemunu's Miriswetiya Dagaba, by the construction of great rings of encircling masonry, some of it being arched after a fashion certainly unknown two centuries B.C., but none the less ornamental, while decidedly excelling in strength. All the preservation and restoration here is being done at the expense of a Prince of Siam who paid down a large amount to secure prompt attention.

There has been of late years, therefore, and there still continues, much stir among the ancient monuments and ruins of Anuradhapura. A great



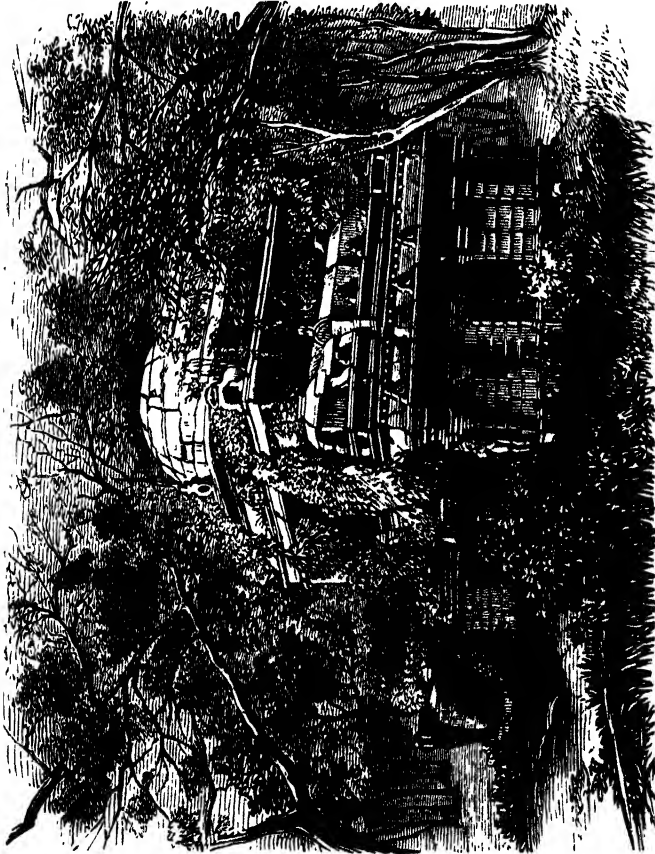
LEAVES FROM THE SACRED BO-TREE.

From Engraving in Scribner's Magazine.

amount of work has been done since Sir John Dickson constructed his outer and inner circular roads; but if only properly prosecuted, there can be no doubt that the mission of Mr. Bell is destined to lay bare that which cannot fail to add immensely to the interest of the ancient capital. Mr. Bell's first report published last year, and his second which only reaches us to-day, though dated October last, fully show this. First, we have a complete plan of the "Supposed Monastery of the Abhayagiri fraternity, Anuradhapura"—the sect of Buddhists who adopted the "Wytulian" heresy. Next comes what is perhaps Mr. Bell's most interesting "find," in a handsome "Buddhist Railing"—the only one found in Ceylon—enclosing a building south of the Abhayagiri Dagaba. It is all of solid masonry, the openings in the railing being horizontal slits, small in proportion to the massiveness of the "posts" and "rails." The work in "coping" and "plinth" and in the "pillars" of the building is clearly laid down, and the whole railing is found to enclose a considerable space. Next we have a partly coloured plan of the west façade of a brick building at the fifth mile on the outer circular road, with the ground plan and pavement elevation. Finally, a diagram is given of an

"ancient stone bridge over the Kanadarawa Ela," with the elevation, plan and section, the bridge being some eighty to ninety feet long.

On the other hand, it has to be remembered that, so far, scarcely anything has been done beyond the bounds of the so-called "sacred city." Beyond its limits, on the north side, lay extended the "secular" city, and the greatest "find" of all perhaps—"the king's palace"—can only be discovered in this outside division. Who is to



RUINS OF THE DEWALA, POLONARUA.
From a Photograph by Lieut. R. W. Stewart, R.E.

find it—to lay the walls and pillars of this palace bare? The fact is, that not until there is a clearing away of four or five feet of superincumbent earth from several square miles, can justice be done to the exploration and excavation of the grandest, if not oldest, capital of Ceylon. Tennent, Hardy, Dickson, and Burrows could not describe what they never saw—what is hidden, and well preserved fortunately—under a thick covering or a big mound of mother earth. Herein lies the

great archæological interest of the region. All Europe and the rest of the civilised world have been full of interest over explorations in Asia Minor (the ruins of Troy), in Egypt, etc. The ancient ruins in Ceylon have hitherto been supposed to be well defined—if not sufficiently cleared. But the fact is there is room and reward for a number of explorers and excavators. We cannot expect the Ceylon Government to do more than touch the fringe of the work. We want a "Dr. Schlieman" to come to the rescue. Where is he to be found? And yet surely there is more than one ready, among the rich men of Europe and America, to take up the mission. Some of the wealthy but idle men of Europe, it may be, are longing for a chance of distinguishing themselves



REMAINS OF THE OLD TEMPLE GATEWAY, DONDRA HEAD.

From a Photograph by Barton.

in a new line—of connecting their name and fortune with a work likely to excite, perhaps, a world-wide interest. How, then, are men of this type to be told about, and brought to, the North-Central Province of Ceylon? We turn for answer to our past Governors, Sir William Gregory and Sir Arthur Gordon, who yield to no Anglo-Ceylonese living in their interest in everything connected with Anuradhapura. Can they not excite enquiry on the part of "English Society," the literary and antiquarian members of the "Athenæum Club," or such clever leaders of thoughtful as well as wealthy circles as Lady Jeune—herself the granddaughter of a former governor of Ceylon; and also get the metropolitan press to notice the subject, with the possible result of a thoughtful

English millionaire or wealthy savant being roused to devote his attention to our great buried city, and to the advantage of bringing its far-extending ruins into the full light of day? We trust so.

SUCCESS OF THE IRRIGATION POLICY IN THE NORTH-CENTRAL-PROVINCE AND HAMBANTOTA DISTRICT.

Sixty years ago, as we are told in his memoirs, Major Skinner found the district of Nuwarakalawiya inaccessible save by tortuous, overgrown and almost impracticable native paths. When once he forced his way through from Arippe, "the world of stone pillars" was almost as great a revelation to him as to Robert Knox nearly two hundred years earlier. He found in parts of the district, too, a considerable population and corresponding cultivation; but in others the remnants of the people were visibly dying out from disease engendered by bad food and worse water. At that early date, the future great roadmaker tersely summed up the two great wants of the people in what is now the North-Central Province, as "roads" and "water." Is it not a disgrace to the British Government, asked the then young officer (Lieutenant rather than Major Skinner), that the rate of commutation for grain in this part of the country should be a *penny a bushel*, simply because there is no market for its disposal through want of a single road connecting the district with the rest of the island? Turning to the other side of the question, Lieutenant Skinner was equally confident in affirming that if "water, water," was only supplied to them, the people of Nuwarakalawiya could do anything.

To turn now to the Nuwarakalawiya of more modern times, we have to consider the policy of Government of recent years and the present condition of the people and prospects of irrigation. Looking back, and wise after the event, we have long felt how unfortunate was the oversight on the part of the Government, the intelligent public, and especially the press, that, at the time the Kandy railway was completed, an ordinance was not passed to fund the traffic receipts entirely separate from the general revenue, and especially to devote all surplus profits—after meeting interest and sinking-fund contribution on debt—to railway extension. During our recent visit to Anuradhapura, we found it to be the centre of quite a network of admirable roads branching out in all directions. There is the road to Kurunegala, to Puttalam, to Mannar, to Jaffna, to Matale, to Trincomalee (besides a host of minor roads), all intersecting, or meeting in, the North-Central Province, so that there are few of the remoter divisions of the island so well served with roads.

Now, as regards irrigation works, we have ourselves to some extent to make a confession and retraction. Our attack, in the Royal Colonial Institute, on the policy which led the Ceylon Government to spend money on large tanks away from population, was based mainly on the case of Kantalay. We urged then, what we have never ceased since to urge, that not *irrigation* alone, but agriculture in all its departments, so far as suited for the natives, should receive the attention of the Government—that an AGRICULTURAL rather than "*Irrigation*" BOARD OF ADVICE should be created. To this opinion, as well as to the great advantage of early railway extension into the northern districts, we adhere; but in respect of the un wisdom of the expenditure, at the time it was incurred, of public revenue on such large irrigation restoration works as those of Tissamaharama and Kalawewa, we confess we have seen reason to modify, and indeed to alter, our opinion. We are now

convinced that the expenditure, in both these instances, has been wise and beneficial in the interests of native agriculture and of a population which will more and more increase under the influence of such works. Tissamaharama and Kalawewa must be considered as indicating the two most important series of irrigation works undertaken by the Ceylon Government in the past decade; and they both have been the subject of a great deal of adverse criticism. Indeed the former has been several times associated with the terms "failure" and "waste of public money;" and for some years it did seem as if Tissamaharama, like Kantalay, would illustrate the foolishness of taking up large works prematurely, or where the people were not ready and eager to avail themselves of water privileges. But how great is the change of recent years, and how strange that there was no one in Council during the irrigation discussion, to dwell on the credit this large work reflects on Government. Writing a year ago, Mr. Short reported that 1,500 acres receiving water from Tissa yielded two crops yearly, and that for the produce of 30,000 bushels of paddy a ready market was found at Hambantota, Tangalla and Matara at R.1.50 per bushel—so far, of course, ousting so much of Indian rice. Not only so, but Mr. Short declared the cultivated area to be steadily increasing, the demand for land—among Sinhalese and *Moormen* from other districts, we believe—to be very keen, at rates considerably above upset price, and that fresh storage had to be provided "to keep pace with the ever-growing demand for water." The assistant agent, moreover, anticipates progress, under the present policy and conditions, "until the whole country between Tissa and the sea becomes one vast cultivated expanse."

Nor is this all. Such faith have the people in the next big scheme still under construction, in the Southern Province—the Walawe works—that already, in 1889, land had been sold under it at R.23 per acre. We believe too that the Hambantota Administration Report for 1890 when it appears will indicate a steady continuance of the industry, progress and good results previously recorded; for, a few days ago, we had, on competent authority, most confident assurances as to the great success which is bound to attend all the Tissa and Walawe works.

So much for the south. Let us now see what can be said of the North-Central Province with its thousand village tanks duly restored by the people so far as any earthwork is concerned, and duly sluiced by Government, and all this capped by public expenditure approximating to R.600,000 through which Kalawewa, Yodiela and connected works have been rendered serviceable. Well, we saw one large tank full at Anuradhapura with water from Kalawewa which was simply invaluable to the people of that town and neighbourhood. We saw a good many of the natives altogether, but looked in vain for any of the miserable specimens of humanity so common in the province a dozen years ago. We heard from officers who had been absent from the district for some years that the change for the better in the appearance and welfare of the people they met in outlying divisions was most remarkable. Not only so, but every official we met expressed the fullest confidence that Kalawewa, as it stands, would be found of such value as to warrant every cent spent on it; for even in the past season—the third of exceptional drought—it had done much, though merely as a foretaste of the great and lasting good which must be experienced in ordinary years.

In respect of coconut cultivation, we had indeed some months ago evidence of progress in these remote north-central districts which astonished us not a little. In answer to the call for information for our "Handbook and Directory," Mr. Ievers was good enough to send



"SENSATION ROCK," ON THE Ceylon RAILWAY INCLINE.

From a Photograph by J. Laxton.

us a copy of his office list including no less than a hundred different gardens ranging from two to forty acres in the Anuradhapura district.

NOTES OF A TRIP TO ANURADHAPURA.

Leaving Colombo by the early train of Good Friday, we got to Matale without incident by the way worthy of record, and in time for luncheon before starting by the two-horse coach along the North road. "The lang toon o' Kirkaldy," to which Matale has always been likened, seems to get longer every year, and it shows signs of increasing prosperity and improvement in other ways. Thriving schools are to be seen, reading rooms and book depôts and other evidences that the rising generation are looked after. We had to hear so much of the discomforts of coach travelling beyond Matale that we were prepared for a much rougher experience than actually fell to our lot. The coach to Dambulla is exceptionally well horsed and fairly comfortable, at any rate for those who are fortunate enough to get the box seats, and so avoid the risk of being crowded inside. The roads are specially good, and the passenger traffic ample. We had taken the precaution to secure, in the horse coach to Dambulla, two seats (for our party of two) a week beforehand, and also the whole of the bullock-coach between Dambulla and Anuradhapura. Two seats in the ordinary way cost for Europeans £12 from Matale to Dambulla, 29 miles; and £12 thence on to Anuradhapura, 40 miles. The whole coach from Matale to Anuradhapura is £35, which means only 3 seats for Europeans and one for a servant; while from Dambulla to Anuradhapura the whole coach is £20. These details may be useful. Altogether, our journey by coaches between Matale and Anuradhapura cost £64 for 138 miles, against only £16.50 (excursion rate, first class) for 196 miles by railway between Mount Lavinia and Matale!

One is apt to forget, amidst its modern surroundings, the ancient importance of Matale, the *Mahātalawa* (the great plain 560 feet lower than Kandy) of the Sinhalese chronicles, once the seat of royalty and later a principality. The drive out of town as far as the North Matale group of estates is one of the most pleasant and picturesque of its kind in the island. It is one long avenue shaded by Liberian coffee, cacao, coconut palms, or farther on by rows of the well-known "kapok"-yielding cotton trees.

Aluwihara—once the scene of some of the richest coffee cultivation in the island—is passed on the left, and we note the huge rocks sheltering the caves which we explored with Mr. Alexander Ross many years ago. These caves are historically interesting as far back as King Walagambahu, or 90 years before the Christian era; for here did the monarch call together the company of monks who for the first time transcribed Buddha's teachings, the language being Pali. Matale being 1,136 feet above sea level, the drive of 14 miles to Nalande, where there is a clean, prettily situated resthouse, involves a fall of 203 feet—and Dambulla, being only 533 feet altitude, we have another descent of 400 feet in the 14½ miles to that terminus; but the fall is by no means a continuous, steady one, there being long stretches of a level or climbing road to alternate with the occasional steep descents. Some splendid tea-fields are passed near Kawdupelella, and farther north towards Nalande we come on an abandoned tea-clearing, in which, however, the tea so far from being choked out is determined to form the jungle, whatever the weeds may do for undergrowth. If only there were a sufficiency of rain, what

splendidly rich flats for tea could be got on the borders of the Central and North-Central Provinces, or beyond! Dambulla is reached at nightfall—too late to climb the rocks and view the cave or rock temples, a part of the programme reserved for our return. After some dinner, we started in the bullock coach, which had been made fairly comfortable with planks, mattress, and pillows so as to recline at full length. Still



THE PAVILION, KANDY.

there is considerable room for improvement, especially in regard to the length of the improvised bed or couch, which must be quite inadequate in many cases. Nevertheless, our night journey from 8 P.M. to 5 A.M. covering some 40 miles cannot fairly be described as very trying. The roads were in splendid order, the bullocks did their work well, we had delightful moonlight, and notwithstanding the tinkling of bells round

the bullocks' necks and the occasional blowing of a horn to warn "all and sundry" to clear the way for "Her Majesty's mails," we were able to sleep a good deal; and after a short rest at our destination, a bath and change, we felt equal to a day's march among the ruins notwithstanding the night journey. This should encourage ladies, seeing that a lady made this Friday night's journey and was able to go about all day Saturday, in spite of a decidedly higher temperature than we are accustomed to in Colombo.

On leaving Dambulla, we felt we were fairly out on the great north road of the island, and as we passed over its long stretches of comparatively straight level gradients,—the fall is only 200 feet in some 40 miles—we could not help thinking of the suitability of the route for a steam tramway. The traffic in bullock carts is by no means a large or crowded one considering the long distances. There would be no risk, therefore, of steam proving an inconvenience in this region. No doubt the subject will be discussed in the Commissioners' Report on the Jaffna Railway, now fully due.

We must not leave the impression, however, that the road between Dambulla and Anuradhapura is a very lonely one. We did not at all find it so; and coming back we had the opportunity of seeing more of it by daylight. There is a good deal of population, and the people seemed comfortable enough at such villages and stations as Madattugama, Elagama, Kekirawa, Maradankadawala, Periyakulam, Allittanne, Tiripane and Galkulam; while the fine iron lattice-bridges over the Dambuluoya, Mirisgoniyoia, and Malwattaoya, besides that over the Nalandaoya, receive far less notice from the passing traveller than they deserve. Especially is this the case in the dry season, when only tiny streams trickling far below the road-level are observed. If we pass in monsoon time, doubtless full and raging torrents reaching high up towards the bridges would cause the traveller to hold up his hands and bless, if not the "General" at least the Governor, under whose auspices they were "made" and placed where they are.

The resthouses along this road are well-chosen for picturesqueness as well as convenience of situation. The country about Tiripane is very pretty—a picture of sylvan beauty, grassy parks and fields surrounded by forest.

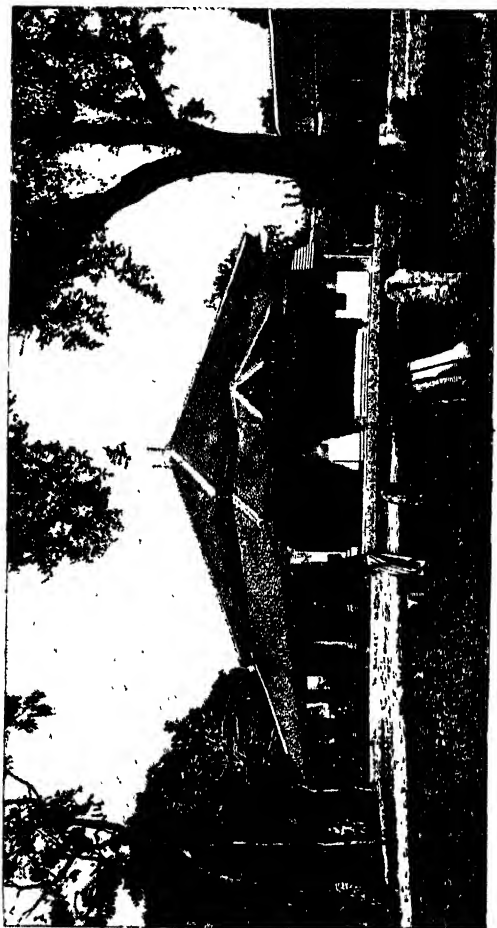
ANURADHAPURA.

Our first introduction to Anuradhapura was in the early uncertain gleams of dawn, and passing glimpses of great castellated masses towering far above the prevailing forest imparted an air of romance and mystery which made us feel as if we were entering a veritable fairyland. "More light" did not diminish the mystery nor yet dissipate the romance. The parklike domains surrounding the little town, the lakes, the forest drives, the palace pillars, all made up a first impression that stirred the imagination in favour of the supernatural—save that with vegetation at its best, we felt that

"So fair a scene, so green a sod,
Our English fairies never trod."

To descend to the practical, we may say that a very brief experience of the place made us realise that there was "no end to it"—that as

respects ruins and archæology, we might, if so inclined, copy the poor workwoman who—all her life working under hard competitive conditions, in a midland town—was so struck when she first saw the *sea* that she dropped on her knees and fervently thanked God that here at last



THE GOVERNMENT RESTHOUSE FOR VISITORS AT ANURADHAPURA.
From Engraving in Scribner's Magazine.

there was one thing of which He had made enough for everybody ! Of ruins, covered if not revealed, the Anuradhapura district—or let us say the North-Central Province including Polonnaruwa,—has surely enough for all the antiquaries in Europe, even if conveyed simultaneously to the spot. Like the young American after some days' hard work among the

ruins in Rome (or was it Florence?), one might almost say, "What with sculpturs, and staturs, and picturs, I'm gorged." Scarcely the pictures, perhaps, although examples of painting are not wanting.

Our readers need not fear, however, that we are going to enter into detailed descriptions of dagabas, temples, pokunas, palaces, pavilions, *et hoc genus omne*. These have been already so often and fully described, by Tennent and other historical writers on Ceylon, and made so freely and popularly available in Burrows' Guide, supplemented as that now is, and will be, by Mr. H. C. P. Bell's successive interesting reports, that description is the very least duty devolving upon us.

We shall only refer in the briefest and least technical way to what we saw in the course of our wandering for the three days we had to spare in the places. There is no more attractive sight in Anuradhapura than the view of the Thūpārama Dagaba—the most ancient and handsomest of all, though one of the smallest—as seen from the verandah of the Government Agent's residence. A wide grassy avenue has been cleared, the dagaba bounding the one end, and the cluster of modern Government buildings not unpicturesque in their way, amidst parklike surroundings at the other. A modern town with its kachcheri, court-house, P.W.D. establishment, hospital, resthouse, school, and bazaars, we confess, looks out of place side by side or scattered amidst the many memorials of kings and priests reaching beyond the Christian era. But great taste has been shown in utilising the open spaces, and in planting up grand shady and flowering trees—teak, mango, Inga saman, etc.—around the modern buildings, while the long bazaar is a model of neatness and attention to sanitation.* Anuradhapura, we suppose, may be said to be in the midst of a great plain, and yet apart from the hill-like dagabas, there are the bunds of Bassawakulam, Tissawewa and Nuwarawewa bounding the town to break the monotony; while the depression which now marks the bed of the Malwattoya must enliven the scene when filled to overflowing by a grand rushing river in the wet season. Anuradhapura, with an elevation of 312 feet above the sea (about the same as Rambukkana), and a rainfall averaging 54.50 inches spread over 100 days would be considered to be very handsomely provided in any less hot and thirsty land.

The quickest way to give our readers a summary idea of them is to reprint a tabulated statement which, rather curiously, Burrows neglects

* The improvements in and around the town since Tennent's day, forty-four years ago, must be immense, to judge by his description of what he saw:—

"The solitary city has shrunk into a few scattered huts that scarcely merit the designation of a village. The humble dwelling of a Government officer, the pansala of the officiating priests, a wretched bazaar, and the houses of the native headmen, are all that now remain of the metropolis of Anuradha, the 'Anuragrammum Regium' of Ptolemy, the sacred capital of 'the kingdom of Lions,' on whose splendours the Chinese travellers of the early ages expatiated with religious fervour. The present aspect of the place furnishes proofs that these encomiums were not unmerited, and shows that the whole area, extending for some miles in every direction, must have been covered with buildings of singular magnificence, surrounded by groves of odoriferous trees. It recalls the description of the palace of Kubla Khan,

'Where twice five miles of fertile ground,
With walls and towers, were girded round;
And there were gardens, bright with sinuous rills,
Where blossomed many an incense-bearing tree,
And forests, ancient as the hills,
Enfolding sunny spots of greenery.'"

to place in his Guidebook. The Anuradhapura dagabas number seven, and according to size* are arranged as follows:—

	Original height (supposed).	Present height of Dagaba.	Diameter at base.	Diameter of bell.	Date begun.
	Feet.	Feet.	Feet.	Feet.	
Abayagiri	405	281	325	357	B.C. 89
Jetawanarama	316	269	310	355	A.D. 302
Ruwanweli	270	189	379	258	B.C. 137
Mirisawetiya		82½	164	128	B.C. 161
Thuparama		62½	59	38	A.D. 276
Lankarama		32½	44	—	unknown.
Sela Chaitiya	20 (in too ruinous a state to be ascertained.)				

Our first visit was to Ruwanweli (golden-dust) Dagaba, 2,050 years old, King Dutugemunu's greatest work as it has been called, although surely his irrigation undertaking in Kalawewa and Yodi-ela alone are far worthier of exaltation than the Ruwanweli and Mirisawetiya dagabas, even if the Brazen Palace be also counted. It is interesting to mark the poor attempts at restoration or conservation on Ruwanweli which (unlike most of the other dagabas) is in priestly ownership and care. The brickwork wall erected round the bell is visibly insufficient to withstand the pressure, and may be expected to give way at certain points ere long. It presents a great contrast to the more scientific and permanent work constructed under P. W. D. direction for the Government on Abhayagiri and for the Siamese Prince by Mr. Murray on Mirisawetiya. The work on Ruwanweli is at present suspended for want of funds, until pilgrims supply the priest in charge with offerings abundant enough to allow a portion to be devoted to a continuance of his self-imposed task. We examined the gateway, pokuna, figures of Buddha, double platforms, with friezes of lions and the still grander circle of elephants, originally furnished, says the *Mahavamsa*, with tusks of real ivory: but are these, and many other points, not all excellently described in the chronicles of Burrows? No doubt Ruwanweli in all its early grandeur must have been a sight to cheer the dying monarch as he lay in his couch at a position opposite to it still pointed out, although Dutugamunu is said to have deprecated priestly adulation and exaltation in his last moments. The inner treasure chamber of Ruwanweli as of other dagabas is frequently referred to, and the desire to rifle those and indeed all the treasures connected with temples and palaces is given as the natural explanation of the destruction wrought by the Tamil invaders. But we find nowhere in Tennent or Burrows an adequate explanation respecting the sacred chambers containing these "precious treasures," the rifling of which most likely caused the demolition of a large portion of each dagaba.

THE DAGABAS AND THEIR TREASURES.

With references to the account of "treasures" hidden in the dagabas, we may mention that some years ago Mr. Ievers explored the heart of Abhayagiri, "the fortress of safety," which belongs to the crown. He tunnelled into the centre, through 200 feet of solid brickwork (2,000 years old)—a most laborious operation. After reaching the centre and

* The dimensions here given differ very considerably from those given in our "Handbook and Directory."

cutting a way into the supposed sacred depository, all that rewarded his enterprise were a few beads of no value save their historical interest.

Of all the dagabas, Abhayagiri has perhaps most interest to the modern visitor, not because it was once the most stupendous of the series, but because the prisoners who were lately engaged in masonry work on the top have left a means of ascent in steps along the side of the brickwork by which even ladies with fairly steady nerves can gain the crown of the mound and thence climb through the towers,—the modern restoration—by winding staircases until a height is gained of 231 feet above the platform, 540 above sea-level. Here, on the summit, a grand outlook over town and country is presented. Of its kind, the view is unique: not of life and activity such as added to the scenic show described in well-known lines which we found ourselves repeating,—

“ Still on the spot Lord Marmion stayed,
For fairer scene he ne’er surveyed ;”

but of a scene restful to the eye, beautiful in its way ; yet chiefly attractive for its historical interest. Our American cousins try to make up for the want of history or romance in the case of their great towns of the past half-century, by giving them names at once characteristic and descriptive. Thus San Francisco is the “ Golden ” or sometimes “ the Bay Window City ” ; Chicago, “ the Prairie or Lawn City ” ; Baltimore, “ the Monumental City ” ; New Orleans, “ the Crescent City ” ; San Jose, “ the City of Gardens,” and so on. The American visitor looking from Abhayagiriya across to its companion dagabas, over the pillars of Brazen and Peacock palaces, “ the world of stone pillars,” the forest-covered parks, the glistening tanks, and the wide-extending jungle to the far distant background of hills, might well speak of Anuradhapura as the monumental, forest-shaded city of the plains in north-central Ceylon. A setting sun lit up the scene, and with the heights of Mihintale on the one side, far-distant Ritigala in front, and the striking old-world tower of Jetawanarama behind us, all rising from a sea of forest, a panorama was afforded which must rest indelibly in our memory. A vision of mystery and romance in the presence of two thousand years of history responded to the outward picture and seemed to give us the gleam,—

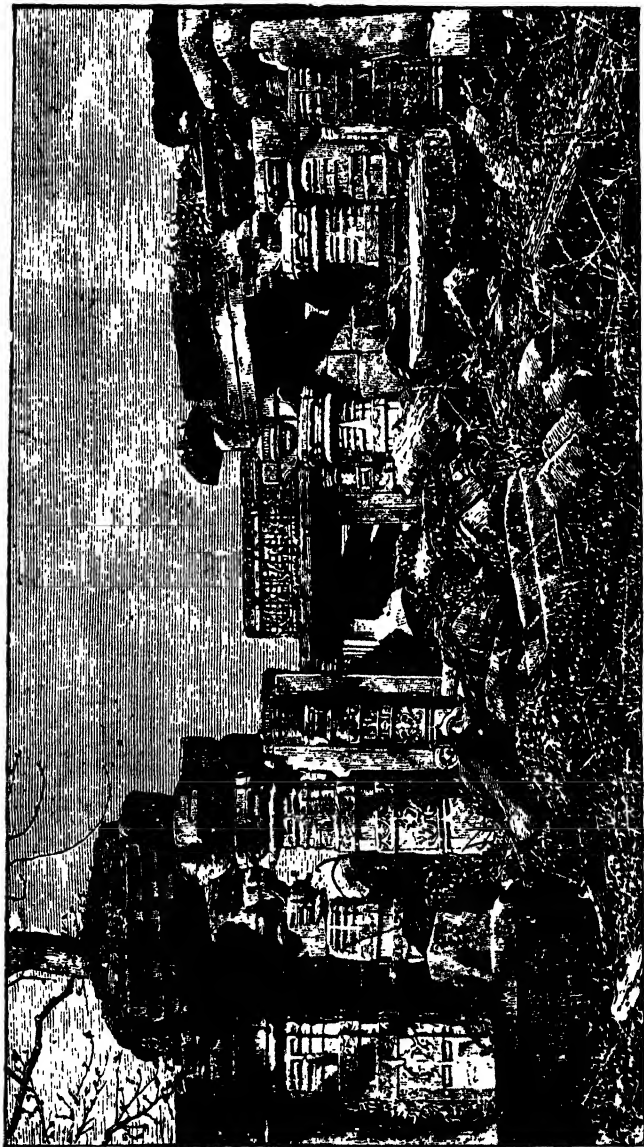
“ The light that never was on sea or land.”

But Tissawewa with its cheering, glistening sheet of water speedily conjured up more practical thoughts. When the Kalawewa watershed gets its proper supply, and the Yodiaela is in full play (not serving Anuradhapura alone, but, as Mr. Ievers has discovered, leading on far towards Manaar), how delightful to note as well the waters of Bassawakulam, in all their far-extending length, and still more those of Nuwarawewa ! In the monsoon season, with the Malwatteoya running banks high and all nature refreshed and at its best, Anuradhapura may be placed above most other low-country towns in Ceylon, as enjoying

“ The melodies of woods and winds and water.”

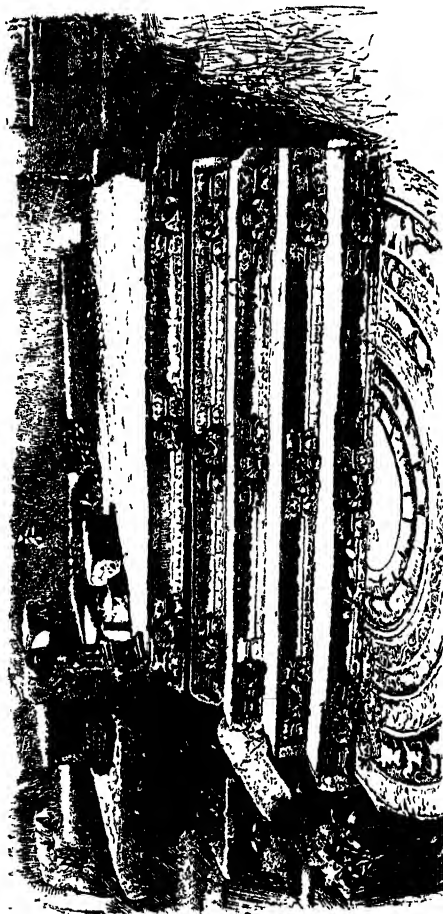
How strange that the splendour of this grand old capital, its many extensive tanks and wide fields, should be forgotten by the native monarchs of Ceylon themselves, and to such a degree, that there is not even an allusion to Nuwarakalawiya and its towns in the style adopted by Wimala Dharma (in 1687) as king of Ceylon, discursive and comprehensive as his designations were in all conscience, thus :—

“ Emperor of Ceylon—King of Cotta, Kandy, Sitavacca and Jaffna-



AMONG THE RUINS OF POLONARUA.
From Engraving in Scribner's Magazine.

patam—Prince of Oovah, Bintenne and Trincomalie—Grand Duke of Matelle, and Manaars—Marquis of Toompane, and Yatteneura—Earl of Cottiar and Batticaloa—Count of Matura and Galle,—Lord of the ports of Colombo, Chilaw and Madampe,—and Master of the Fisheries of Pearl,”



MOONSTONE AND STEPS IN THE QUEEN'S PALACE, ANURADHAPURA.

From Engraving in Scribner's Magazine.

Getting down from Abhayagiri was not quite so easy as going up, a false step having doubly to be guarded against; but all agreed that the trouble of the climb and descent was well rewarded.

We may mention we saw Bassawakulam (the oldest tank in Ceylon) a little closer during our drive, with not much more than a big pool in its centre, in which, however, we counted some twenty-four dark objects

marking the heads of as many crocodiles. That number, however, is only a small proportion of the hosts which haunt all the tanks in the neighbourhood.

We have already alluded to the restoration work on Mirisawetiya, with the handsome brick arches constructed by Mr. Murray. These affect a great saving in labour and material, though perhaps the modern arches look a little incongruous far up the sides of King Dutugemunu's "chillicsambal" dagaba. We ought to dilate here on the beauty of the chapel excavated on the western side as a specimen of Sinhalese architecture, but here again as for all the chapels round the dagabas we can do better than refer to "Burrows," supplemented by "Bell."



Of the Jetavanarama as a dream of beauty, with its forest-clad sides and old burnt-brick tower, much might be written. One or two beautiful pictures of the scene hereabouts, we were glad to hear, have been recently painted by an English artist-visitor, whose work may possibly adorn the walls of "The Academy" next year, doing justice in colour, as well as form, to what is by far the most attractive of the Anuradhapura dagabas.

Not the least interesting visit of inspection was that to the Thuparama, the oldest and most venerated although the smallest of the dagabas. Seeing that Fergusson pronounces this dagaba "to be older than any monument now existing on the continent of India" (it was built by King Devanampiyatissa in B.C. 307 to enshrine the right collar-bone of Buddha), a special interest attaches to it. The platform and approach are at present in charge of an aged female devotee. The three rows of graceful pillars surrounding Thuparama are particularly striking, some of them being polished, a fact discovered of late years by the P. W. D. architect, and we believe the only case in which such pillars have been found to be polished. Before leaving the dagabas let us quote a sentence or two from Tennent in his final summing-up on the subject:—

"Such are the dagabas of Anarajapoor, structures whose stupendous dimensions, and the waste and misapplication of labour lavished on them, are hardly outdone even in the instance of the Pyramids of Egypt. In the infancy of art, the origin of these "high places" may possibly have been the ambition to expand the earthen mound which covered the ashes of the dead into the dimensions of the eternal hills, the earliest altars for adoration and sacrifice. And in their present condition, alike defiant of decay and triumphant over time, they are invested with singular interest as monuments of an age before the people of the East had learned to hollow caves in rocks, or elevate temples on the solid earth.

"For miles round Anarajapoor the surface of the country is covered with remnants and fragments of the ancient city; in some places the soil is red with the dust of crumbling bricks; broken statues of bulls and elephants, stone sarcophagi and pedestals, ornamented with grotesque human figures, lie hidden in the jungle; but the most surprising of all

is the multitude of columns, the 'world of hewn-stone pillars,' which excited the astonishment of Knox when effecting his escape from captivity."

OTHER SIGHTS IN THE "BURIED CITY."

Time and space would fail us to put down the long list of further objects of greater or less interest, historically or architecturally, visited by us under such guidance as ensured that the vivid impression made on our minds will long remain. But in referring to these, we should only be repeating what is readily available, or has been recently given in our

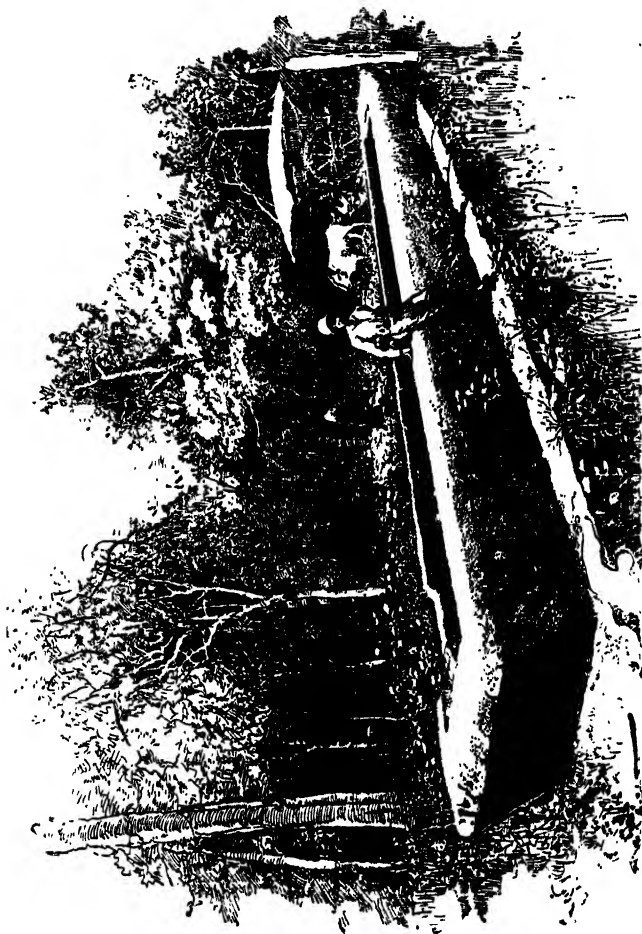


AN ANCIENT STONE CANOPY AT ANURADHAPURA.

From Engraving in Scribner's Magazine.

columns. We should have to write of the original Dalada Maligawa, or temple of the tooth, Lankarama dagaba, Dutugemunu's tomb, the Queen's Palace (so-called), the enormous pokuna known as the Elephant Tank, sedent Buddhas which seem to eye us from the sombre jungle, or from the ditch into which they may have fallen, the graceful stone canopy discovered and erected under such interesting circumstances by Messrs. Ievers and Burrows within recent years, and near which Mr Bell has been discovering and deciphering inscriptions of the time of Mahindo III. The enormous and curious monolithic stone canoes, and

the series of gigantic pillars which were supposed to mark the site of the king's elephant stables (in reality a durbar-hall or monastery), with the adjoining "pavilion" and its most perfect "moonstone," and "door-guardian" stones—by no means, however, the king's palace, so long



A STONE "CANOE" OR RICE-FEEDING RECEPTACLE, BUILT OF GRANITE SLABS,
62 FT. 9 IN. BY 4 FT. 4 IN. WIDE.

From Engraving in Scribner's Magazine.

sought after and yet to be discovered. The Kuttam pokuna, or twin-bathing places farther on, are specially interesting, one having its monolithic massive stone steps replaced in their original form by Mr. Ievers, while the other is left a picturesque ruin. Verily these ancient monks understood the philosophy of the bath, and they took pains to be well and comfortably supplied.

We also visited the "Galgé," with its rock-cave hermit residences, and near to which again Mr. Bell has done some interesting excavation work, though not equal to his grand find in the Buddhist monastery of the Abhayagiri fraternity, with its unique, massive stone railing.

Of course, we visited the "sacred Bo tree," the descendant and representative no doubt of the original of 2,200 years ago—or it may be the original, if de Candolle's theory be correct that trees do not die of old age, but if uninjured externally may go on without limit! Of its surroundings, as of those connected with the Brazen Palace, we spare description.* We gave more attention perhaps to "the Palace of the Peacock," the pillars of which stand next to the schoolroom used for service by the Church Mission.

The rainfall and weather must have been a subject of constant interest in ancient Anuradhapura. What pains did rulers and priests take to conserve the precious water! Not simply are tanks in evidence on every side, but where else are there such a multiplicity of bathing establishments, "pokunas" of elaborate construction, of vast monolithic stones carefully placed at an easy angle for ascent or descent, with occasional recesses and arrangements for shower baths, which showed how well the old Buddhist monks understood comfort. Close by the agent's grounds and *kachcheri*, fine specimens of these "pokunas" are being restored in order to be utilised by the people, the one for bathing and the other for drinking purposes, now that Kalawewa and Tissawewa are likely to make a regular supply of water pretty certain. The water privileges of the 3,000 people—more or less according to the latest census—in modern Anuradhapura, are indeed to be very considerable, what with tanks as well as "pokunas" reserved for drinking or bathing purposes. Between two such minor tanks we saw Murray's economical cement sluices of different sizes in full operation, while the place of their manufacture a little farther on was full of interest as we inspected the various processes involved.

THE "VIA SACRA" AND MIHINTALE.

Leaving Anuradhapura on the Monday morning for Mihintale—not so early as we ought to have done—we passed close, or at least parallel, to the *via sacra* of the ancient Buddhist hierarchy, along which so many thousands of royal and priestly processions—led by monarchs, marshalled by priests—passed from the great temple of the capital to the top of the sacred mountain, with its 1,840 steps formed by King Maha Dailiya Mana A.D. 8. Tennent compares this road to the Appian Way between Aricia and Rome for its numberless traces of antiquity in monumental ruins now hidden by jungle. Mr. Bell is ambitious of tracing the route along which, 2,000 years ago, pious King Devanapriyatissa sent his chariot; accompanied no doubt by many more, to bring Mahindo to the "sacred city."

Passing out of the town we note the old resthouse—the one described in Burrows' Guide, by the way—now used for Gausabhawa meetings and as a native resthouse generally. Soon after we cross the Malwattaoya (the Kadamba of the *Mahavamsa*), which played such an important part in the escape of poor Knox.

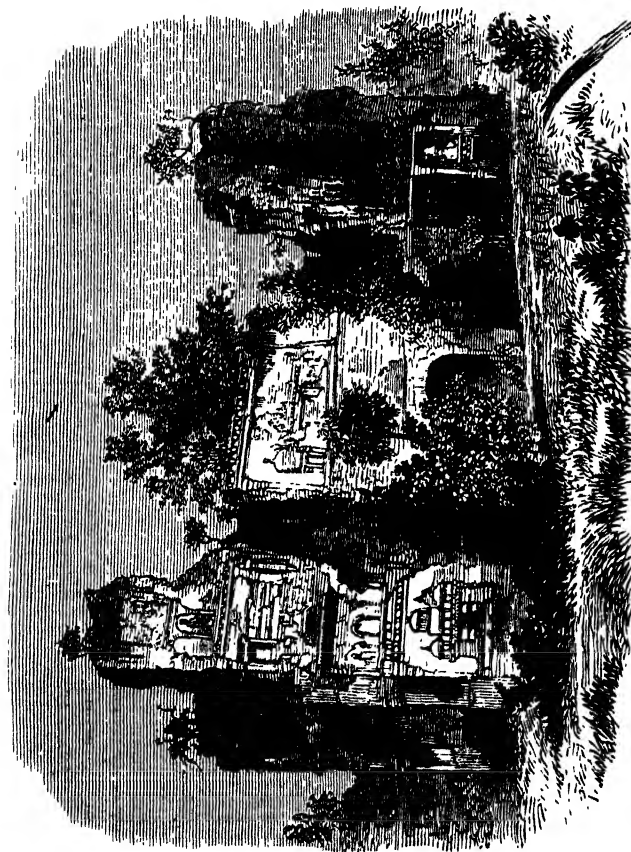
* A curious bit of modern Sinhalese work is visible near the inner series of steps (with their grotesque dwarflike figures) in an ancient inscription which has been built in *sideways* in the course of a recent native restoration of the wall.



THE SACRED BO-TREE THE OLDEST HISTORICAL TREE IN THE WORLD. FIRST PLANTED FROM A CUTTING
IN CEYLON, 2,133 YEARS AGO.

From Engraving in Scribner's Magazine.

It was too late by the time we got to the Mihintale resthouse to attempt the ascent before breakfast, and so we had to prepare for the climb during the hottest hours of the day. It is perhaps the first time on record that a European lady (who was of the party) has ventured up and down Mihintale—said to be a thousand feet above sea-level—between 1 and 3 P.M. The climb, or rather walk, up the steps is, in



RUINS OF THE JAYTAWANARAMI, POLONARUA.

From a Photograph by Lieut. R. W. Stewart, R. E.

the early morning or late afternoon, a comparatively easy one, but the heat in the early afternoon of the sun in its strength, and reflected from the thousand steps, as well as from many monumental stones and rocks around, was an experience to remember, though fortunately no harm came to any of the party. For descriptions of the rock inscriptions, the caves, pokunas (the Naga Pokuna especially), terraces, the Etwehera Dagaba on the top, and farther on the Rock Temple, Ambastala Dagaba—the meeting-place between the Buddhist emissary

Mahindo and his royal convert Devananpiatissa, we are fain to refer to Burrows. Never was "the shadow of a great rock in a weary land" more welcome than was the shady side of the dagaba about 2 P.M., nor young coconuts more refreshing than those got from the priest's attendants lower down. Here we sat under the shade of a palm grove interspersed with a tree bearing a gorgeous yellow flower, which being the "Kiniberiya" of the Sinhalese is, as we see from Dr. Trimen's list, the *Cochlospermum Gossypium* of botanists. But the historical interest of Mihintale is a far greater attraction than anything visible in its ruined temples or inscriptions. We are standing on what is undoubtedly the most ancient scene of mountain worship in Ceylon, a spot venerated by the Sinhalese long before the discovery of Buddha's (or Adam's) footprint was made on Adam's Peak. Tennent gives the height of Mihintale as over 1,000 feet, and speaks of it as a mountain carved into a temple while Sigiri is a hill scarped into a fortress. The view from the top of Mihintale is undoubtedly very fine, although we had no evidence of its extending from sea to sea, as some writers describe it. We had, through one ancient doorway, a marvellous outlook over the ancient capital eight miles off, with its dagabas, especially the tower-crowned and forest-clad Jetawanarama, framed in a picture of exceeding beauty.

Standing on such a point, it was impossible not to think of the scene presented 1,900 years ago when the king caused the Etwehera Dagaba (covering a single hair from the forehead of Buddha!) to be enveloped in a jewelled covering ornamented with pearls, while he spread a foot carpet from Mihintale to Anuradhapura that pilgrims might proceed all the way with *unwashed* feet! The view over the country generally has an interest of its own—we look across a sea of jungle intersected with open green or glittering spaces, marking the village or larger tanks, eastward towards Trincomalee, southwards over Tamankaduwa, westward across Anuradhapura and northward towards the Wannī. Not many eminences are to be noted in the North-Central Province or neighbourhood, and the following list compiled from our "Handbook" may be of interest:—

	Altitude. Feet.	Situation.
Mihintale Bazaar	370·9	N.-C. Province.
Iriyaperiyakulam	431·5	25 miles north of Anuradhapura.
Issembessagala	531·4	16 miles north-east of Anuradhapura.
Pidawila	... 635·8	17 miles west of Dambulla and in Nika-
		waganpaha Korale, N.-W. Province.
Andiyagala	... 675·7	24 miles west of Dambulla and in
		Hatalispaha Korale of the N.-W. Province.
Mayilakanda	... 707·8	21 miles south-west of Anuradhapura.
Manakanda	... 807·2	N.-C. Province.
Eliagamuwa	... 856·7	8 miles north of Dambulla.
Puliyankulam	... 881·9	2 miles east of the 24th milestone on
		the road from Jaffna to Dambulla.
Gatalagama	... 1090·1	10 miles south-east of Anuradhapura.
Dambulla Rock	1118·0	Dambulla near Resthouse.
Sigiri Rock	... 1144·6	Near Dambulla.
Baniyakanda	... 1986·6	6 miles south-west of Dambulla.

Looking over a wilderness of jungle like that seen from the top of Mihintale, we can realise how vast is the reserve of untouched forest-land in Ceylon. No doubt we have all degrees of timber, and it is interesting

to note in connection with Major Skinner's "connaught" what the several native terms for different kinds of jungle are. Thus "Namadilla" is chena of one year's standing, the crop being reaped in February; "Kanatta" is chena jungle four to five years old, the crop reaped in August; "Chena" proper is jungle of twenty years' standing, and "Mukalana" is proper forest land. Our descent from Mihintale by another and winding route through the forest, taking us by the king's bath, with its handsome lion's-head spout and other carvings, by ancient caves, with their inscriptions high and perpendicular enough to make the service of taking "squeezes" a work of some risk for the archæologist, was all full of interest. By-and-by we took leave on the main road of our courteous and competent guides, and getting into the comfortable bullock-cart so kindly lent to us, we were soon trotting off towards Tiripañe on our homeward journey along the north road. As the afternoon and evening closed in, we were able to understand what we had so often read of the solitude of our northern jungles, and in our resting-place beside the bed of an old tank we began to appreciate, though only to a limited extent, what Tennent writes of a somewhat similar scene :—

"There is something solemn and impressive in the majestic repose of these leafy solitudes, where the deep silence is unbroken, except by the hums of innumerable insects, whose noises, though far too fine and delicate to be individually audible, unite to form an aggregate of gentle sounds, that murmur softly on every side, and produce an effect singularly soothing and dreamy.

"The trees are covered with birds of gorgeous plumage; pea-fowl sun themselves on the branches, and snowy egrets and azure kingfishers station themselves lower down to watch the fish, which frequent these undisturbed pools in prodigious numbers. The silence and stillness of these places is quite remarkable; the mournful cry of the waterfowl is heard from an incredible distance; and the flash of a crocodile as he plunges into the stream, or the surprise of a deer, when, disturbed at his morning draught, as he

'Stamps with all his hoofs together.
'Listens with one foot uplifted,'

and breaks away to conceal himself in the jungle, cause an instant commotion amongst the fishing birds and cranes; they rise heavily on their unwieldy wings, and betake themselves to the highest trees, where they wait for our departure to resume their patient watch upon the mangroves."

It is a curious fact that, while oranges and limes are not unknown, there are no pine-apples grown in the North-Central Province, and the name seems almost unknown to the people, for in the case of a wild screw-pine growing over some rocks, a Sinhalese boy called them "ansi" in place of the usual "annási." Near the Mihintale resthouse we were interested in a small plantation of "Nux Vomica" trees, the crop of which was, a short time ago, gathered and despatched to Colombo by the Forest Department. The people generally do not know much about tea, but it is drunk regularly in the temples and by headmen, as well as at the resthouses. An intelligent Korála informed us that 6*d.* to 9*d.* per lb. was the price paid by the priests for their tea.

THE EXCAVATIONS AT ANURADHAPURA: DEPTH OF RUINS
UNDER THE SURFACE.

BY MR. H. C. R. BELL.

Anuradhapura was never as extensive as London—in the sense of continuous streets and buildings with intervening gardens and tanks stretching for miles every way.

The sacred city did cover an area of quite 4 miles square, thick with monasteries, jostling one another in very close proximity, with perhaps open “gardens” here and there attached to the large religious establishments.

But the idea that the city extended “16 miles on all sides” may be at once and for ever abandoned. It did not even run out to Mihintale, only 8 miles distant. No doubt the notion arose from “suburbs” such as Mihintale and other places within a reasonable distance, being spoken of as part of Anuradhapura.

Next I must explode the fallacy that the buildings as seen at the present day stand “on the same level as that on which they were originally erected.” I can’t do better than quote from my third progress report for October to December 1890, regarding some monasteries cleared of jungle by me near the Lankarama and described therein:—

“The size of buildings as shown in the plan represents merely the present surface measurements, which will in nearly every case prove to be smaller by some feet than the original dimensions. . . . Such is a bare record of the number and dimensions of the several ruins within the monasteries, as they now exist, 3 to 4 feet above their original and true ground level. . . . Basements and steps lie buried awaiting excavation. . . . If the ‘buried city’ of Anuradhapura is to be searchingly and systematically excavated within a reasonable period of time, in the face of the many adverse concomitant conditions existing, a force ten times larger than that now employed [30 men, since raised to 60] would not be too great to cope with the countless ruined sites—the square miles indeed of ruins—imbedded in solid sun-baked *débris* of brick and tile held close by snaky roots. The greater portion of the ruins above ground has, it is true, been cleared of jungle, but it were ‘midsummer madness’ to rest on the hope of ever identifying them from such surface measurements, and the necessarily limited, almost stereotyped, descriptions alone possible at present. The ruins—at least a very large proportion of them, must be divested, speaking roughly but within the mark, of from 4 to 5 feet of soil before any comprehensive grasp can be attained of their general plan, interconnection and relative importance, and our imperfect knowledge advanced beyond the present stage of groping conjecture.”

I have said above “4 to 5 feet” crust needs removing. What think you when, as at the “Buddhist railing site”—a building on another building—we have gone down 10 to 12 feet below the surface as it was before we commenced operations there, and hardly reached the foundations yet!

All this goes far to contradict the general impression (to which you give expression in your article) that “it seems problematical if the lost portions of the city would be found below the existing ground surface,” and “that no deep trenching would be necessary to reveal such objects of interest as may yet remain to be found.”

Finally, I am in a position to controvert the statement that "no articles of ancient domestic use or ornament seem ever to have rewarded the labours of the archæologist at Anuradhapura."

A visit to the local Museum will convince any one that such domestic articles as lamps, desks, tools, etc., and a variety of ornaments (beads, rings, necklaces) have been freely unearthed from time to time.

THE GREAT TANK KALAWEWA AND OTHER BIG RESERVOIRS.

BY A. M. FERGUSON.

Now that Kalawewa is completed a lake of seven square miles stands above the forests and fields which stretch away to Anuradhapura. Some readers may be surprised to learn that it is not only the largest restored tank in Ceylon, but that it will rank with the largest in the world. Mr. Henry Parker, in his elaborate Report on the Giant's Tank, written so far back as November 1881, instituted a comparison which is now unjust to Kalawewa, inasmuch as its probable area was then taken at only 2,300 acres, or little more than half the real area of the tank as restored, which is 4,425 acres. Mr. Parker then under-estimated also the area of Padawiya, the largest tank in Ceylon, larger even than the Giant's Tank. If his revised estimate, after examination of the locality, could be accepted, this Padawiya tank with 20,000 acres area would closely approach in extent the great Madras tank of Viranam, with its 22,000 acres extent. But, taking Mr. Parker's more moderate estimate of 10,000 acres for Padawiya, then Kalawewa in October next will rival this, and, perhaps, equal it, if the spill is ultimately raised five feet. Meantime, the corrected comparison of areas alone (capacity in millions of cubic feet being in a good many cases doubtful or unascertainable), as follows:—

COUNTRY.	RESERVOIR.	AREA IN ACRES.	REMARKS.
Madras	Viranam	22,000	Ancient.
Ceylon	Padawiya	10,000	Estimated.
Do.	Giant's Tank	6,380	As proposed.
Madras	Semprampakam	6,000	Estimated.
Ceylon	Kalawewa	4,425	Ascertained.
Do.	Kanthalai	3,584	As restored.
Do.	Allai	3,000	do.
Do.	Rugjam	3,000	Original tank.
Bombay	Sholapur	3,000	As enlarged.
Madras	Red Hill	1,600	do.
Bombay	Vehar	1,394	As constructed.

Of the above tanks, Vehar, in the Bombay Presidency, and the Red Hill reservoir above Madras (the bursting of which latter some years ago produced so much alarm, some loss of life, and great inconvenience), are intended solely for the supply of water to the Presidency towns; Madras 400,000 population and Bombay twice that number. The reservoir at Labugama, a sub-range of the Adam's Peak system, whence our chief city, with its 120,000 inhabitants, is now supplied with water, covers 176 acres.

THE VERIFICATION OF THE ANCIENT CHRONICLES AND HISTORIES OF CEYLON.

[From an Address to the Ceylon Branch of the Royal Asiatic Society, by the President, DR. COPLESTON, Bishop of Colombo, March 1892.]

Among the methods by which the objects of this Society may be attained, I have always been inclined to give prominence to the method of combined work. It is for combination, as distinguished from individual study, that a society affords special opportunities. And it is obvious that results can be attained by combination which would be impossible to solitary study. Not many of us are qualified to prosecute the several branches of inquiry which bear on one point, and are necessary to establish a conclusion even on one point, though it be but a minor point. And of those who are qualified, perhaps not one has the necessary leisure. But if some line of study is plotted out, so to speak—to which any member of the Society can contribute just what comes in his way, as he can and when he can, knowing that it will come into the common stock and be worked up with the rest—then those who have little leisure, or who can touch only one branch of inquiry, may all take part. As some members of the Society may remember, I made suggestions of this kind some years ago, in regard to two subjects: the Jātakas, and the collection of Sinhalese Glossaries. These were not altogether unfruitful, but less fruitful than some other topics might prove. They were not altogether unfruitful, for we managed to put together a number of papers, by four or five contributors, on the first fifty Jātakas, and the result was not bad, so far as it went; and as to the Glossaries, a start was made, and a scheme drawn up, which I yet hope to see carried further. Just when that scheme was drawn up, I, for my part, was invited—and thought myself bound to accept the invitation—to another work, which has till now occupied my leisure time. But both topics were rather too limited to secure any wide co-operation: they were necessarily limited to Pali and Sinhalese scholars. Without abandoning these, I suggest to-day another object of combined work: the verification of the native chronicles and histories of Ceylon. Of the materials, necessary for this, by far the greater part is accessible to the English reader. It is one of the peculiar distinctions of the island, that from early times it has possessed historians. The Sinhalese stand alone, or almost alone, among Indian peoples, as having had an interest in history. Their chronicles are the oldest, I believe, and for centuries the only instances of histories in the Indian world. The continent had its great epic poems; but in these, though they had no doubt some foundation in fact, the fiction was the chief part,—the facts are not commemorated from the annalist's point of view but from the poet's. The Sinhalese chronicles are distinctly historical in form, not epical. Now the inquiry I propose is the important one: To what extent are the Sinhalese histories true? There is certainly obvious fiction mingled with statements of fact. Putting the obvious fiction apart, are the statements of fact trustworthy? The dates, the names of persons, the wars, the buildings, the social and religious conditions,—in regard to these to what extent can we rely on our authorities? This is not a question that can be answered in one word, by saying they are trustworthy, or they are not. It is all but certain that they will be found more trustworthy for one period than for another, more to be trusted about one class of facts than about another

—trustworthy within certain limits and not beyond them. I propose that we should bring together, little by little and in course of time, all the evidence by which they can be tested. There are several different kinds of tests, of which I will mention three kinds, which occur to me as the chief. First, the histories are to be tested by existing buildings, monuments and inscriptions. If the history says a building was erected by such a king in such a year, and we find upon it an inscription—evidently contemporary—to the same effect, we know that the historian had access to correct information on that point. Secondly, by comparison with independent literary records. If our history describes a certain state of things as existing at a given date, and in a book written by some one else quite independently, the same state of things is described under the same date, the accuracy of the historian is established. Thirdly, the history is tested by examination of its own contents. If it contradicts itself, if in an early chapter something is referred to which in another place of the same book we read came into being much later, if there are contradictions and anachronisms, the history is so far discredited. Of these three, it is to the first two heads that most can be contributed. As to the test of inscriptions and monuments, there are so many of these in Ceylon, and they do so often illustrate or support the histories, that a great deal may be done in noting these verifications. For instance, the Mahavansa tells us that King Parakrama II. in the 13th century cleared the road from the Kandy side to Adam's Peak, with particular reference to Ambagamuwa. In Ambagamuwa there is now a stone recording the precautions taken for keeping that path clear. If Mr. Bell finds on that stone proof of its having been set up by the very king—I do not know whether this is the case or not—whom the Mahavansa specifies, the history is so far confirmed: for the reign of that king, at any rate, the author had access to trustworthy materials. If of the same king it is related that he planted fruit trees in a certain part of the district of Bentota, and those who are familiar with that district find that there are indications of its having been very early planted, the history is so far confirmed. And here I will suggest, though out of its place, a possible test connected with trees. I do not know when the coconut was introduced into the island. But our historian says a good deal about coconuts in connection with the reign of the same Parakrama II., in the 13th century (chap. 86). Can we trust the history securely enough to say that the coconut had certainly been introduced as early as that,—or shall we find out from other sources that it was introduced later, and so convict the author of the Mahavansa of writing from imagination? Of the verification of the chronicles by comparison with independent writings or histories, I propose to give some more detailed illustration; but first I must say, for the benefit of any members of the Society—if there be any—who do not know it, what are the histories or chronicles to which I refer; and what are the claims which they make to historical character. It is very important to know what materials the writers *claim* to have had access to. There are the old Pāli chronicles, the Dipavansa and Mahavansa, of which we may say roughly that they date in their present form from about A.D. 400; and there are the Sinhalese chronicles, the Rājavaliya and others, which are much later, of uncertain beginning. Both Pāli and Sinhalese books have been continued, of course by many different hands, down to the present century. I am going to touch only the earlier, the Pāli histories. The Mahavansa, or great history, is in Pāli verse, and consists, in its complete form, of about 100 chapters, varying in length, but averaging, I suppose, about 200 couplets to the chapter.

The original issue, about A.D. 400, consisted of the first 37 or 38 chapters (it is not quite certain exactly where it left off), and contains the tradition or the history (you will see presently why I use two words) of the whole period from the time of the Buddha, or—which is the same thing—from the landing of Vijaya, to the date of the author or one not long before it,—roughly speaking from the 6th century B.C. to the 5th century A.D. It was compiled at the end of the period, of nearly a thousand years, of which it treats. What materials does the author profess to have had access to? He composed his work, he tells us in his prefatory lines, from tradition, and from previous chronicles made by “the ancients.” And the Commentary, or *Tika*, probably written also by the author himself, adds that the materials were taken from the Sinhalese books (*Atthakathā*, books illustrative of, or introductory to, the sacred books of Buddhism)—his materials were taken from these Sinhalese Buddhist works, which were in the possession of the monks of the Mahavihāra, or Great Monastery of Anuradhapura. By those monks, and their predecessors—who are doubtless the people the author calls “the ancients” (under which name they are constantly referred to by Buddhaghosha also), by those Buddhist monks of the Mahavihāra the materials were collected and handed down, on which the author of the Mahavansa relied. This is his claim to have access to sound materials. What is the extent of that claim, taken at its very largest? At its very largest, it runs back to the foundation of the Mahavihāra. Before that, the author makes no pretence whatever to have had historical materials. How *could* the Mahavihāra monks have kept records of what occurred before their institution was founded, before there was a monk in Ceylon, before Buddhism had been introduced into the island? The Mahavansa does not even claim to rest on historical materials, except after B.C. 250. About B.C. 250, speaking roughly, Buddhism was introduced into the island, the great monastery was founded, and the recording of events began. With the three centuries before that, the life of the great monastery was in no sense continuous. It came over, so to speak, from India. Its founders knew nothing of the history of Ceylon: they were strangers. All that they could know, even if they set themselves to inquire, would be collected from the memories of living men, and from such traditions as were cherished among the previous inhabitants, a non-Buddhist, uncultivated, unhistorical people. It cannot be too decisively affirmed that history in Ceylon began with the introduction of Buddhism. The previous inhabitants of Ceylon are not more likely—but even less likely—to have kept records than any other non-Buddhist Indian people. When we look at the contents of those early chapters which contain the traditions of the three centuries between Vijaya and Mahinda—the pre-Buddhist period—we find them just what we should expect. There are particulars which have the look of facts, about the father and the grandfather of the reigning king; before that time—before Tissa’s grandfather—there is scarcely anything but fairy tales and fantastic stories about beautiful princesses. It has been urged in support of these early chapters that the illustrious Turnour described the Mahavansa as a trustworthy history. But Turnour would never have said that it was equally trustworthy throughout. In fact, what Turnour does say (p. 61) is this: “From the date of the introduction of Buddhism into Ceylon in B. C. 307, that history is authenticated by the concurrence of every evidence which can contribute to verify the annals of every country.” This I think is too strong a statement, even for the period to which it refers; but most emphatically I maintain, for the reasons I have given, that whatever may be established as to the credibility of the *Buddhist*

chronicles, will not go to establish in any appreciable degree their value for the pre-Buddhist period. But to return. This first instalment of the history—for the *Dipavansa* is an earlier and rougher compilation from the same materials as the *Mahavansa*—was issued in the 4th century or soon after the end of it. From that time to about A.D. 1300 (the reign of Parakramabahu IV.) it was continued, we know not by whom or with what intermissions. It may be that it was constantly added to—after one reign or after eight short reigns, chapter by chapter—or it may be that only at long intervals a large piece was written up. We are not told. But we are told that from A.D. 1300 it was intermitted. Four hundred and fifty years later, Kirti Sri Raja Sinha ordered it to be written up to date. How far it was then written up from imagination and how far there were public records out of which it could be authentically written up—this is a very interesting question, and one which we are not without materials for answering. From A.D. 1750 to the occupation of Kandy by the English forms, so to speak, a third part. By how many hands, or at what dates this was compiled, I do not know. Now for the tests of which I have promised to give specimens. We have means of testing the history, with varying degrees of accuracy, at or near each of the critical periods; the foundation of Anuradhapura (that is, at the point when the claim to historical materials begins); the beginning of the fifth century, close upon the issue of Part I.; and during Part II., that is, the part written up in A.D. 1750. For the period since A.D. 1750, there are of course abundant means of verification. What are these tests? For the beginning, the edicts of King Asoka, the great Indian Emperor, inscribed on rocks and pillars about India: for about A.D. 400, the travels of Fa Hien, the Chinese Pilgrim, who then visited Anuradhapura, and for the latter part of the 17th century (besides all the Portuguese and Dutch works) the account of Robert Knox. The *Mahavansa* and *Dipavansa* tell us that it was Asoka Piyadasi who sent Mahinda to establish Buddhism here, in the reign of the Sinhalese King Tissa. They fix the date of this, and say a great deal both about Asoka and about the mission of Mahinda. Asoka is a person whose place in history is fixed with certainty by his coming into contact with European history by his relations with several Greek kings, whom he mentions: he is also a person whose acts and views are well known to us from his writings—writings which may almost be called voluminous—on the rocks and pillars to which I have referred. The date of his anointing, or, as we should say, coronation, was B.C. 270, and his edicts were issued between B.C. 260 and 230. With this date the *Mahavansa* does not exactly agree, it is about sixty years out. Of this discrepancy a very probable explanation has been suggested; and the error is probably little more than a miscalculation. But even supposing the date to be sixty years out, it was impossible for a writer six centuries later to get even as near as that to it, if he had not definite records to rely upon. Apart from the question of date, the representation which the *Mahavansa* gives of Asoka is verified by his own edicts, both in general and in detail. The names of his father and grandfather, and that his grandfather was the first of the dynasty, set up by a certain Brahman—these points are confirmed by the Greek historian. That he was not always a Buddhist, but was converted to Buddhism after his consecration, that he made great efforts for the promulgation of Buddhism, which reached as far as Ceylon,—in these main points the edicts bear out the chronicle. That in his time a council or assembly of Buddhist monks for settling the text of the sacred books was held, this the edicts do not say; but there

is much in them—in particular the king's increase in definite acquaintance with the technicalities of Buddhism and with definite books, and his respectful relations with the monks of Magadha—there is much, I say, that is more than compatible with such a council. But the veracity of the Mahavansa in a particular detail has been confirmed from another source, which may well be reckoned with the edicts of Asoka, namely, the relic box found by General Cunningham in the dagaba at Sanchi. This box must date not much later than B.C. 200, and it bears the name of "Majjhima, the Teacher of the Himavat." Now the Mahavansa enumerates the persons who were sent in Asoka's time, by Moggali, the chief of the Buddhist community, to different countries, and among them specifies Majjhima as having been sent to the Himavat. This is alone enough to prove that the writer of the Mahavansa had access to detailed and reliable history of the latter part of the third century. It bears out the statement of his Preface and Commentaries that he drew his materials from the archives of the monks of the Great Vihara in Anuradhapura; and renders it, I think, impossible to suppose him mistaken when he attributes the foundation of that monastery to Mahinda, the son of Asoka. At the same time it will be seen that this striking verification, concerned as it is entirely with Mahinda, Asoka, and Asoka's ancestry in India, does not afford any presumption whatever that there were records kept in Ceylon before Mahinda came or the Mahavihara was established. Compared with this, the verification supplied of Fâ Hien, the Chinese traveller, is slight; and what is more, it is not much needed, because the date of his visit was very near to—a little previous to—that of the publication of the Mahavansa itself; that is, Fâ Hien came at a time for which we know for certain that the chronicler's history was nearly contemporary. Still it is interesting to notice their agreement. From considerations into which I cannot now enter, I think the date of his visit may be fixed in all probability to the earliest year of the reign of King Mahanâma, about A.D. 412. Those, we learn from the Mahavansa, were the flourishing days of Anuradhapura. The kings of that period were accomplished, —some in art, and some in science,—literature was thriving, as the Mahavansa itself proves; sculpture especially, and images are mentioned; and the stimulus which had promoted these was intercourse with India, of which intercourse the bringing of the tooth relic by a Brahman princess and the visit of the Great Commentator to Buddhaghosa were illustrations. Further, about this period the rivalry ran very high between the two principal monastic establishments of Anuradhapura, the Mahavihara (from which the Mahavansa issued) and the Abhayagiri Vihara; each in turn obtaining the pre-eminence and securing royal patronage; though several, perhaps most of the kings, are represented as patronising both. Fâ Hien begins by repeating what he learnt of the tradition about the early inhabitants of Ceylon and of the visits of the Buddha to the island, just as they are recorded in the Mahavansa. Then he describes the magnificence of the dagabas, and the vast number of the monks in the viharas to which these dagabas belonged. He was most impressed by the Abhayagiri Dagaba: it was 400 cubits high and adorned with gold and silver and precious stones. In its monastery there were 5,000 monks. The Mahaviha held in his eyes quite a very high attainments had just died then, and there was living at the Chaitya Hill (long afterwards called Mihintale)—which also belonged to the Mahavihara—a famous monk, Dhammagutta. He speaks of the Vihara of the Tooth, and gives a long account of the perahera—or carrying

round in procession—of the tooth, but it is at the Abhayagiri—not at the Mahavihara—that he describes the chief ceremonies as taking place. Among the splendours of the city, which was all well-built and well-kept, he admired especially an image of the Buddha, 20 cubits high, made of green jade. This may well have been one of the very images specified in the thirty-seventh chapter of the Mahavamsa, and it was made of green jade, a material which is not to be obtained, I believe, in any quantity in Ceylon, and which must, therefore, have been brought from India. It is interesting, I think, to notice, though it cannot surprise us, how closely the picture given by this intelligent visitor agrees with the narrative of the native historian. From the fifth century I leap to the seventeenth. The testimony of Robert Knox is the more remarkable because it bears upon the period for which—as I have already remarked—the verified chronicle was not contemporaneous. If it is found to support the verified chronicle, it will prove that the latter was made from contemporaneous records. Knox was detained in the Kandyan country from about 1660 to about 1680. He gives a very full account of the person, character, habits and policy of the King Raja Sinha, tells us where the king lived, and describes his relations with the Portuguese and with the Dutch. He reports the condition of many of the towns, Kandy, Badulla, Anuradhapura and Alut Nuwara; describes the customs of the people, and gives a very vivid picture of their religion as he saw it. In all this he may be said on the whole to confirm the Mahavamsa—not indeed in its estimates of the proportion of things—but in its general representation of events and facts. The Mahavamsa gives of Raja Sinha II. a less unfavourable account than Knox. Knox describes him as a tyrant of diabolical brutality and cruelty, but not without very considerable capacities for governing, of great personal strength and activity, and a warlike and fearless temper. The Mahavamsa calls him (96'6) “an imperious man, whom none could approach or conquer, and brave as a lion, courageous, endowed with great strength of body,” and tells several anecdotes of his athletic feats. And again “an imperious ruler.” But it gives him credit for great zeal for Buddhism, protecting the religion, etc., while Knox gives one the impression that he cared little for it, and in fact, preferred Christians—as being more trustworthy—to Buddhists; still he practised Buddhism outwardly and gave gifts. Some of the difference may be explained by the supposition that the part of Raja Sinha's reign on which the Mahavamsa dwells is the earlier part, in which his struggles were against the Portuguese. Knox was there in the latter, when it was the Dutch who were the enemy. In fact, I think it is probable that either the burning of Kandy or the great rebellion in 1665, which drove the King away, also broke up the office of the King's recorder, and scattered the historians. These disasters are mentioned by Knox, not by the Mahavamsa. The Mahavamsa doubtless exaggerates Raja Sinha's successes against the Portuguese, laying emphasis only on his victories. But it admits that the “wicked unbelievers, after their defeat,” began again to plunder the districts, and that the King went to Dighavapi, in the eastern part of the island. There, the historian tells us, he destroyed a Portuguese fort and gave it to the Dutch. The victories of the Dutch are credited to Raja Sinha; for he is said to have destroyed their forts all round the island, and utterly destroyed and expelled the Portuguese. This refers to what took place in the earlier part of his reign before Knox's time. “He established,” says the native history, “the people of Olanda in places bordering the sea, that they might guard Lanka and hinder the enemy. And he commanded them to come to him every year with

presents." Knox most curiously confirms, not this view of the case, but the statement that this was the Sinhalese view of the case. He tells us that the Dutch took great pains to flatter the king, and to persuade him that they were in Ceylon merely as his servants and messengers. "The Dutch, knowing his proud spirit, make their advantage of it, by flattering him with their ambassadors, telling him that they are his majesty's humble subjects and servants, and that it is out of their loyalty to him that they build forts, and keep watchers round about his country, to prevent foreign nations and enemies from coming, and that they are thus employed in his majesty's service; so it is for sustenance which they want that occasioned their coming up into his majesty's country." Knox tells us that Kandy had been burnt by them, and that the king lived, all the latter part of his reign, in Hewaheta (probably at Hanguranketa) in retirement. The Mahavamsa says nothing of this, except that the king went to the east part of the island. But in its silence it agrees with Knox: for it never mentions this king's being at Kandy or building anything there. In Knox's minute account of the perahera at Kandy, there is no allusion to the Tooth, nor is there any reference to it in all his description of the religion, though he specifies the Bo-tree and the Footprint. It is quite certain in fact that he had never heard of the Tooth. The Mahavamsa tells us that Raja Sinha's father had placed the Tooth in safe hiding. Whatever may be the truth about that—whether the Sinhalese or the Portuguese account of its fate be correct—the Mahavamsa admits that it was not in Kandy. Such are some illustrations of the work of verifying or testing our island histories, in which I invite the members of this learned Society to combine. The instances which I have chosen are no doubt among the most striking; but each of them requires fuller and more exact treatment than I have given it; and there are many more lodes to be worked, even in the same mine. Then there is the wide field of buildings, monuments and inscriptions to supply new tests for these Pali histories, and beside these the Sinhalese histories, which treat of the recent period and of the low country, where they come directly under the test of the Portuguese and Dutch chronicles and records. Of the matters I have touched upon, the whole, I believe, can be read in English; but of the Rajawaliya and its companions a good English translation is still, I believe, wanting. To translate the later portions of that work, and compare them minutely with Ribeyro and the other European writers, would be, if I am not mistaken, labour well spent.

APPENDIX VII.

CHRISTIANITY AND MISSIONS IN CEYLON.

TENNENT says in his "History of Ceylon" that "the fanatical propaganda of the Portuguese reared for itself a monument in the abiding and expanding influence of the Roman Catholic faith. This flourished in every province and hamlet where it was implanted by the Franciscans, whilst the doctrines of the Reformed Church of Holland, never preached beyond the walls of the fortresses, are now extinct throughout the island, with the exception of an expiring community at Colombo." This latter statement is exaggerated; the Wolfendahl Dutch Reformed Church in Colombo is a flourishing community, albeit its services are in English, and its chaplain is Irish Presbyterian. The same may be said of the Galle Church, ministered to by a parson of the Church of Scotland, and there are also small bodies of adherents in Jaffna and Matara. What made the Franciscans so successful was their easy adaptation of the Roman Catholic faith as a companion to, instead of opponent of, Buddhism, and their giving long honorific Portuguese names to the natives in baptism, which the latter gladly added to their Sinhalese names, retaining them for three centuries to this day, though many of them now make no profession of any form of Christianity. When the Dutch seized the maritime provinces, many of the Portuguese with their Roman Catholic priests settled in villages within the territory of the Kandian king, seven hundred of them in this way at Ruanwela. No doubt much mixture of races took place; for even Dutch soldiers were permitted to marry Sinhalese women, provided the latter professed Christianity. Money was readily paid by the Sinhalese to both the Portuguese and Dutch for the privilege of prefixing Don to their names.

The Roman Catholic Missions have prospered under the tolerant British rule in Ceylon, and they number by far the largest body of Christians, the old Portuguese Mission being lately transferred from the care of the Archbishop of Goa to that of the newly-appointed Archbishop of Ceylon, who has three bishops under him at Colombo, Kandy, and Jaffna. There is a large number of priests and teachers; and educational establishments (notably St. Benedict's) are maintained at Colombo, as well as at Kandy and Jaffna.

The Anglican Church has had a bishop of Colombo since 1845, who has the oversight of the chaplains and clergymen settled over regular English congregations as well as of the agents of the Society for the Propagation of the Gospel, and in a less degree of the agents of the Church Missionary Society. The latter have a Conference of their own to settle the affairs and arrangements of their Missions. But all branches of the Anglican Church in the island have united through representatives to support a Synod necessitated by the disendowment and disestablish-

ment of both the Episcopal and Presbyterian chaplains in Ceylon, which was consummated between 1881 and 1886, the life claims of all incumbents in office before the earlier year being reserved. St. Thomas's College, Colombo, is a very notable and useful educational institution in connection with the Anglican Church.

Our estimate of the number of Christians in Ceylon is over 10 per cent. of the total population, as follows:—

Total population in 1893, about 3,070,000.

Total of Christians, about 310,000, distributed as follows.

The Romanists with	...	...	...	...	...	285,000
The Episcopalians with	...	...	...	...	...	27,000
The Presbyterians and Congregationalists with	...	...	...	...	...	14,000
The Wesleyans with	...	...	...	...	...	25,000
The Baptists with	...	...	...	...	...	7,000
Salvation Army, etc.	...	...	...	...	...	2,000
The whole Protestant community with						75,000

By the Census of 1881 the Christians were given at 267,977; in 1891 they were 302,127, an increase of 13 per cent., while the general population only increased 9 per cent.

We are, however, most interested in the history and operations of Evangelical Missions at work in Ceylon. The Baptist Mission agents came first, arriving in 1812; the Wesleyans in 1814; the agents of the American Home and Foreign Mission in 1816; and the Church Mission in 1818; while a number of agents of General Booth's Salvation Army under "Major" Tucker (formerly Commissioner in the Indian Civil Service) arrived in 1885-6.

PROGRESS OF MISSION WORK IN CEYLON.

I.—The work of the AMERICAN MISSION has been confined to stations in the densely-populated Jaffna Peninsula, where a succession of godly, devoted men and women have done an immense amount of good; more of the agents of this society, perhaps, than of any English Society have lived and died among the Tamil people whom they had come from the Far West to instruct and evangelise. The work done in female education has been especially valuable; while Dr. Green's Medical Class of native students, and his compilations and translations of medical works into Tamil, have been productive of great benefit to the whole island. A Christian College, and Industrial Technical Schools for the Jaffnese, are among the fruits of the Mission. Among the honoured names of the agents are Father and Mrs. Spaulding, Dr. Poor, Miss Agnew, Messrs. and Mesdames Saunders, Smith, Howlands, Hastings, etc. An interesting feature of this Mission is the succession of father and son in carrying on the work. (See references in Appendix Extracts from "Trip Round the Island.")

II.—The history of THE CHURCH MISSION in Ceylon up to 1868 is recorded in a little Jubilee Memorial volume by Rev. J. I. Jones. The principal work of the Society has been in the vicinity of Colombo and Cotta, in Kandy, in the southern province at Baddegama, in Kurunegala, and itinerant work throughout the Central and parts of the North-Western, North-Central, and Western provinces. This refers

to the Sinhalese Mission. The Tamil Mission has an agency in the Jaffna Peninsula. Churches and congregations with native pastors, boarding schools for girls as well as boys, vernacular and English schools, a Christian college, and theological and normal classes, all form features of the Sinhalese and Tamil Missions as seen in the present day; and a large number of staunch Christian families at each station testify to the good work done through the Church Missionary Society. All the native pastors have their salaries provided through native Church Councils, which receive a grant-in-aid from the Home Committee of an annually diminishing amount, the saving being given to evangelistic work. The Rev. William Oakley, of this Mission, lived and worked in the island, without ever returning to England, for fifty-two years, until his death as a retired missionary in Nuwara Eliya in 1886. Much good literary and educational as well as evangelistic work has been done by Church missionaries, especially in connection with the language; the names of Lambrick, Ward, Selkirk, Trimnell, Marsh, Fenn, Jones, Higgins, Simmons, Coles, and Griffith being familiar in this connection. An interesting branch is the Tamil Coolie Mission, which is under the ministerial charge of Church missionaries, with catechists and schoolmasters, assisted by a lay and undenominational committee from among the planters and merchants, who are responsible for the funds, all save the salaries of the missionaries, which are provided by the home committee. The coolies on the estates scattered all over the hill country are the objects of the Mission's teaching and care, and on many plantations schools are opened for the instruction of the children.

III.—THE BAPTIST MISSION is the oldest of the Protestant Missions, having commenced in Ceylon in 1814. It had never extended its work much, however, beyond the neighbourhood of Colombo, Kandy, and Matala, until the Rev. H. R. Pigott entered on the Sabaragamuwa province, and the Rev. H. W. Lapham on the North Matala district. Both these missionaries have now retired, and there is only one (Rev. F. D. Waldork) in the field, who, however, is shortly to have colleagues from England. The Rev. E. (the "Apostolic") Laniell did a great work among the Sinhalese in this Mission, and the Rev. C. Carter proved himself one of the best linguists, his Sinhalese dictionary, grammar, and Bible, as well as his preaching in the language, being much appreciated.

IV.—THE WESLEYAN MISSION is perhaps the most important of Protestant evangelistic agencies in Ceylon, for it is the only one that works in the Northern and Eastern, as well as in the Western, Southern, Central and Uva divisions. It was commenced in 1816, and has included many notable men, a number of whom have made their mark as Oriental, Pali or Sinhalese scholars. Among these were the revered and learned Rev. Messrs. Clough, Gogerly and Spence Hardy, and in more recent times Dr. Kilner, Messrs. Scott, Rigg, Nicholson and Langdon. Spence Hardy's "Jubilee Memorials" is one of the most cheering books ever published with an account of Missions, or indeed in connection with Ceylon. The extension of this Mission of late years to Hambantota district, and to the province of Uva, as well as in the Batticaloa district, indicates special life and activity. Ceylon must be one of the most important fields in the world of the Wesleyan Mission, and a large number of flourishing Native Churches (some of them self-supporting) and schools afford evidences of blessing.

The following remarks are taken from an address by Mr. John Ferguson, at a Breakfast Meeting of the Wesleyan Missionary Society at Exeter Hall, in May 1884:—

"There are no more valuable Christian missions in the world than

those which have settled in Ceylon. Geographically, Ceylon is the centre of the Eastern world. With reference to Asia, it has become very much what England has been so long in relation to Europe and the Western world. Christianity and education have made great progress in Ceylon, and there can be no question of the important bearing which the advance of Christianity, civilisation, and education there will have upon the vast continent of India, upon Burmah, Siam, and Cambodia, and even upon China. In Ceylon ten per cent. of the children of a school-going age are being educated; in India the proportion is less than one per cent. From our island Sinhalese and Tamils are going out as teachers, also as magistrates and lawyers, to Madras, and some are even finding their way eastward to the Straits and on towards China. Most of these young men have been educated in mission-schools under the influence of Christianity, and wherever they go they carry with them and disseminate a civilising and, I trust, Christian spirit; so that when you are working in Ceylon you are benefiting not only the people there, but the inhabitants of Southern India, and, directly or indirectly, the peoples of Indo-China, who, as Buddhists chiefly, are in such close relations to Lanka (Ceylon), the sacred land of Buddhism. While travelling in steamers and on railways, I have often heard disparaging remarks about mission work in Asia. Merchants and others who have been in the East often say they have never seen much good result from the work of missionaries. I ask them whether they have ever gone into the jungle, the country districts and villages, or even to the native churches in the bigger towns, and seen the missionary at work there. 'No,' they reply, 'they had never seen him at work in the jungle.' I have; I have again and again gone with the missionaries to their districts, and have seen for myself the good they are accomplishing. I have heard the testimony of the people themselves to the power of Christianity. I have astonished English and American friends by telling them of villages and districts in Ceylon, where Tamils and Sinhalese are as earnest and practical Christians as any in England or in America. In these days of scepticism you might fairly challenge men who deny the success of Christian missions and the good they are doing to send out a commission to Ceylon, to visit these Sinhalese and Tamil villages, where the people have their own pastors of their own race and locally supported, their Sunday-schools and day-schools, and where you might imagine yourself to be in the centre of England or in the most Christian part of America. The time is coming when you may fairly look for reaping a great harvest in Ceylon, if you persevere with your missionary work in that island. I believe that the progress of Christianity and education there will be not only in an arithmetical, but a geometrical progression ere long, so that we may see Christianity permeate the whole island. One word with regard to the influence of laymen. I have often felt, not only that inadequate support is given to mission work, but that missionaries themselves often meet with opposition from some of their countrymen, who go out into those regions on a mission which (as I heard described by Canon Westcott in Westminster Abbey on Sunday last) is more in the nature of selfishness than of self-sacrifice. I would impress upon the pastors assembled here to-day the great importance of seeing that the young men of their Churches destined for a Colonial or Indian life are true Christian laymen, because the influence of such upon their servants and others who observe their consistent life is immensely in favour of the spread of Christianity. When the natives observe that the civil servant, the layman—say the British merchant with whom they deal in business—is honest, truthful, and upright, they

will say, 'He is a specimen of Christianity, we can trust him, and there must be something in his religion.'"

Wesley Christian College, Colombo, is the most notable educational institution in connection with this Mission. The South Ceylon Mission has now been divided into three districts: Colombo and the Western province; Galle and the Southern province; Kandy and the Negombo district, as well as the Central and Uva provinces.

The work of the North Ceylon Wesleyan Mission, with its important agencies, colleges and schools at Jaffna, Point Pedro, Batticaloa, and Trincomalee, deserves special mention. (See Appendix Extracts from "Trip round the Island.")

V.—The SALVATION ARMY, under "Commissioner" Booth-Tucker, commenced work in Ceylon a few years back: the agents chiefly confine their operations to the big towns. There are a few other evangelistic agencies dependent on individual effort.

RESULTS OF DISESTABLISHMENT IN CEYLON.

(From "*The Liberator*," January 1892.)

MR. J. FERGUSON, the editor of the *Ceylon Observer*, who was actively engaged in the movement for Disestablishment in Ceylon, being now in this country, the Executive Committee of the Liberation Society invited him to attend their sitting on the 30th November, to afford information relative to the results of the measure adopted ten years ago. We are glad to be able to give publicity to the more important points of Mr. Ferguson's statement.

"My object," he said, "is to draw your attention to a few of the main results of the good work accomplished some years back in the leading Crown colony of the Empire, very much through the aid of the Liberation Society. One encouragement to the friends of religious equality is the fact that, in less than seven years from the formation of our Ceylon branch of the Liberation Society (of which I had the privilege to be hon. secretary), the result aimed at was achieved. The late Sir W. MacArthur led a discussion in the House of Commons, supported by your society. After the debate and division, and a similar one in the Ceylon Legislative Council, it was felt that the battle was virtually won, and that no truly Liberal Cabinet could maintain the Ceylon ecclesiastical votes. Accordingly one of the earliest instructions of the Governor of Ceylon, after Mr. Gladstone's Government came into power in 1880, was to prepare and pass an ordinance to put an end to all ecclesiastical appointments and votes, and to arrange for handing over ecclesiastical edifices to duly responsible bodies or representative trustees.

"The fact being made known that a Bill granting five years' grace, and securing the vested interests of existing incumbents, was to be introduced, the bishop in Ceylon, his clergy, and leading lay supporters, at once took steps to prepare for the inevitable, and convened a meeting of a synod representing the diocese.

"The Disendowment Ordinance was passed in December 1881. It provided that no further ecclesiastical appointments should be made by the Government; that the salaries of the bishop and chaplains (Anglican or Presbyterian) falling vacant should be paid to trustees for the

respective churches to June 30th, 1886, when all such payments should cease; bishops or chaplains surviving that period were to continue to receive the allowances until they retired or died. It also provided that all church edifices should be given over in trust to the properly constituted representative bodies, in a good state of repair, on July 1st, 1886. It may, therefore, be said that, save in regard to vested interests, the Ceylon Government has been free from all official connection with religion for five years.

"What is the result? From the taxpayers' point of view, possibly it might be said—'not much,' few of the most highly paid appointments having as yet fallen in; and the direct 'Ecclesiastical Vote' has only diminished by twenty-five per cent., or from 86,000 rupees to 64,000 rupees; but if incidentals, repairs to edifices, travelling allowances, etc., are counted, the saving to the public revenue would be considerably larger. But no opponent of these votes made much of the loss or saving on revenue; it was the wrong principle, and the bad moral effect of the State-connection, which were chiefly condemned. I am confident, however, that the Governor of Ceylon and his advisers are heartily glad to be relieved of the anomaly of appointing chaplains to different churches, whether on the advice of the bishop or on their own responsibility. As to the effect on the community as a whole, I can affirm that in our little island, even with its small proportion of Christians, the adoption of the principles of the Liberation Society has already borne striking and most satisfactory fruit.

"Notwithstanding that the Bishop of Colombo since 1881 has lost his archdeacon, the chaplain of St. Paul's, Kandy, and six or seven other State-appointed and State-endowed chaplains, I am enabled, on his (Dr. Copleston's) own authority, to tell you that the diocese of Colombo shows no sign of weakness in consequence of the withdrawal of State-aid. Indeed, the bishop stated, at the synod held last year, that 'in the four years since the final withdrawal of State-aid, the clerical order had increased by *ten*, which is nearly 20 per cent.' I can say that at no period in the history of the Anglican Church in the island has there been so much healthful life and activity on the part of the clergy, or so much lively interest or personal or pecuniary support on the part of the laity, as since the voluntary self-supporting system has come into operation. I do not think I go too far in saying that Dr. Copleston would be unwilling, if he were offered, to return to the old system.

"I should like to speak of the more self-denying and hard-working class of clergymen who have made their appearance since disendowment took place. Nearly all the clergymen now have multiplied services and varied work, such as were unknown during the greater part of the era of the dry, perfunctory discharge of obligations under the State official régime.

"I might perhaps be told that one effect of the withdrawal of State-support in Ceylon in the case of the Anglican Church has been an increased demand on the liberality of friends in England. This is certainly true in respect of endowment funds which have been started, more especially that for the bishopric, to which certain home societies have very liberally subscribed—in some cases on condition of local amounts being forthcoming.

"I have not much to say about the Presbyterian section of the Ceylon Ecclesiastical Establishment, because no vacancy in their few chaplaincies have occurred. The Presbytery of Ceylon (small in membership as it is) has, however, not been idle in respect of the future maintenance of that branch of the Church, and, indeed, in respect of one division—

the Reformed Dutch Church—notable departures have been taken, two new church edifices and a manse having been erected in Colombo within the disestablishment era; chiefly, however, through property endowments belonging to the Wolfendahl Church from the time of the Dutch, though partly also through voluntary subscriptions. An assistant-chaplain had also come from Scotland to Colombo, and a Wesleyan-trained minister has been accepted by the Presbytery, and inducted as minister to the church at Point-de-Galle, in the absence on leave of the chaplain.

“Another most desirable result is this, that while a good example has been shown for several years before by a handful of Congregationalists (Baptists and Independents) in their self-supporting Colombo church, as well as in some Baptist and Wesleyan native churches, yet undoubtedly the fact that *self-support* had to be taken up in so practical a way by the Anglican English churches has given a stimulus to this principle throughout the island, and Anglican (English-speaking and native) missionaries and Wesleyan, Baptist, and American Mission churches are now vieing with each other in showing what they can do for the support of the ministry, and in releasing funds from home in the case of the longer established mission churches.

“As regards the general effect of disestablishment and disendowment, I have no hesitation in saying that it has produced a more charitable brotherly feeling among the different bodies of Christians, and brought them more into line in their aggressive work on heathenism. The Bishop of Colombo is more widely esteemed and trusted in view of the moderate liberal views on many questions he has propounded of late years, as well as from the knowledge of his learning and piety. He has taken an active and leading part in more than one good work in connection with Christians of other denominations—more especially in connection with education and the grievances of managers of schools.”

Mr. Ferguson also referred to the question of the Buddhist temporalities in Ceylon, which, he said, furnished a striking illustration of the evil of State endowments. When the island was conquered a guarantee was given that the temple endowments should be maintained inviolate, instead of being dependent on the will of the Kandyan kings. Many of the priests, becoming independent, grew careless and sensual, so that teaching in the temple schools ceased. In several districts, the priests became odious in the estimation of the people. On the other hand, where the temples had no endowments the priests attended to their duties and retained the respect of the people. The original blunder has been perpetuated in spite of remonstrances from some experienced officers of the Crown, and Sir Arthur Gordon's scheme of 1889 is likely to prove a failure. It appointed local committees to look after the endowments; but, through the apathy of the Buddhist laymen and the opposition of the priests, who object to the control of laymen, confusion is likely to be the result.*

* The following are the main provisions of Sir Arthur Gordon's Ordinance, but if they were strictly carried out and lay trustees generally appointed, it is the opinion, quoted by the Bishop of Colombo, that not one in a hundred of those now becoming Buddhist priests would join:—

“All property, movable or immovable, belonging or in any wise appertaining to or appropriated to the use of any temple, together with all the issues, rents, and profits of the same, and all offerings made for the use of such temple other than the pudgalika offerings which are offered for the exclusive personal use of any individual priest, shall vest in the trustee of such temple, subject, however, to any leases or other tenancies, charges, and incumbrances affecting any such immovable property; and such issues,

"Referring to India, Mr. Ferguson said that the time had come when the Government might follow the precedent established in Ceylon, and so fulfil the promise of the Queen's proclamation. There was no need for ecclesiastical grants for civil servants and railway men, as they were sufficiently paid to provide religious ministrations for themselves, and the troops could be otherwise provided for. The ecclesiastical grants were paid out of funds mainly raised from Hindoos and Mohammedans, and he hoped that what had been done at Ceylon would encourage efforts to put an end to the State-support of religion in India."

MR. CARVELL WILLIAMS, in proposing a vote of thanks to Mr. Ferguson for his attendance and deeply interesting statements, said that the Committee would be able from those statements, so full and so lucid, to judge of the value of the services which he had rendered to the Disestablishment movement in Ceylon.

rents, profits, and offerings shall be appropriated by such trustee for the following purposes and no other :—

- (a) the proper repair and furnishing of such temple and the upkeep of the roads and buildings belonging thereto;
- (b) the maintenance of the priesthood and ministerial officers attached to such temple;
- (c) the due performance of religious services and ceremonies as heretofore carried on, in, or by, or in connection with, such temple;
- (d) the promotion of education;
- (e) the relief of the poor in the case of a *dévāla*, and the customary hospitality to priests and others in the case of a *vihāra*;
- (f) the payment of compensation under section 43 or 44;
- (g) the payment of such share of the expenses incurred in carrying out the provisions of this Ordinance as shall be determined by the provincial committee.



COLOSSAL FIGURE OF BUDDHA.
From Engraving in "Art Journal."

APPENDIX VIII.

THE PRESENT STATE OF BUDDHISM IN CEYLON.

THE BISHOP OF COLOMBO ON BUDDHISM.*

(Review by Mr. J. Ferguson.)

I THINK the bishop may be complimented, if not heartily congratulated on the able way in which he has discharged the self-imposed duty of affording a fair representation of "Buddhism" in Ceylon—of its history in the past and its condition at the present time. Still more may all who are interested in the correct state of things being described for the benefit of readers in England—in Europe and America too—feel a deep satisfaction at the appearance of this volume. Since its announcement was made, I have been able, whenever asked for information about Ceylon Buddhism, to advise all and sundry, literary, ministerial or missionary enquirers, to wait for the latest and most authentic information until Dr. Copleston's work appeared; and I am quite satisfied that a felt need is now supplied, and that here we have, what will be for many years to come, the standard authority and book of reference on all questions connected with Ceylon Buddhism. Behind the shield of these learned and yet very simple and easily-followed chapters, the average Englishman who has never left the old country will be quite able to counteract the absurd glosses and glammers which the versifying of Edwin Arnold, and the lectures (more than the books) of Rhys Davids and other Western so-called Buddhists, have put on the system to make it attractive to the ignorant and curious in England and America who are ever seeking after something new. Studiously moderate in language, fair and courteous to opponents almost in some instances to the point of weakness, fully acknowledging anything that is good in Buddhism—it is impossible for any one to say that the bishop is not a trustworthy exponent and arbiter when he delineates what he knows or has seen, or weighs the system and its fruits in the balance.

The evidence of his careful enquiry and erudition, of his adequate acquaintance with all past and present authorities, and of his industry in bringing his work to the level of the very latest results, is most fully manifest. The volume is therefore, to my mind, a very satisfying one, albeit on a wide and difficult subject. Dr. Copleston, with his great philological acquirements and close acquaintance with Oriental as well as Western literature on the subject, does not hesitate to criticise very keenly some of the weak points in the work of previous writers. The

"Buddhism, Primitive and Present, in Magadha and in Ceylon," by Reginald Stephen Copleston, D.D., Bishop of Colombo, President of the Ceylon Branch of the Royal Asiatic Society. Longmans, Green & Co., London, 1892.

bishop even corrects blunders on the part of Professor Rhys Davids, Dr. Oldenburg, and others. Of course the ordinary lay reader cannot interpose here; but from the clear, adequate way in which the case is put from both sides, in respect of disputed points, I shall be much surprised if there is a reversal of the bishop's judgment on any essential matters.

Allusion has already been made to indications of weakness in straining after an excess of courtesy; for example, in the concluding chapter on "Present Customs and Conduct of the Buddhist Laity in Ceylon." Dr. Copleston, in explaining the difficulties encountered in his attempt to treat this branch of his theme, alludes to his personal relations with those of whom he is to write, and he feels that every unfavourable feature in his picture may arouse resentment, or give praise to people whom he esteems, and *desires to please*. The words I have italicised might surely well be omitted. It is no part of the duty of the historian, or even of the descriptive writer, to think of pleasing a class or a people who have become subjects for his pen. In some parts of the book there are marks of haste and of a want of literary finish and lucid arrangement, due, we may be sure, to the distance between author and publisher and printer, and the impossibility therefore of giving that final supervision and finishing touches which are of much importance in a work of this kind brought up to date.

Let me now more particularly describe the volume. It is one of some 500 pages octavo; the body of the work, divided into four parts and thirty-one chapters, occupies 485 pages; but the type used is so large and so well spaced out that, while it is a pleasure to read as it stands, the matter might well be got into an ordinary volume of 300 pages. The authorities are most fully and freely given in notes to the pages; but apart from these there are not many notes with information in small type, often such a distraction in works of this kind. The only appendix is a short paper on Sirimddhamapura not being Kandy; and in a post-script to this, dated "July 1892," reference is made to Mr. Henry Parker's announcement in the *Ceylon Literary Register* that he possesses ample and conclusive information on the subject.

Then, in addition, there are two indexes of a few pages each.—1. With "Pali and Sinhalese proper names." 2. "Subjects and European proper names."

In his preface Dr. Copleston explains that he has tried to treat his subject in a way at once popular enough to interest the general reader, and accurate enough to be of value to the scholar.

The bishop fairly claims to be an independent student, not a mere follower of previous writers, because he has read a large part of the original "sacred books," and has had access to Sinhalese authorities; and it is very interesting to learn that while he refrained from reading or consulting the writings of one very important author, the "learned Spence Hardy," during the preparation of his own work, yet, since his manuscript has been sent to the printer, he has read "Eastern Monarchism" and "Manual of Buddhism," only to feel astonishment at the accuracy with which Spence Hardy obtained the contents of the Pali texts and commentaries.

In regard to the history, the bishop arrives at a conclusion midway between scepticism and credulity in respect of the moral value of the "sacred books;" and in the description of modern Buddhism in Ceylon he admits that he has aimed at not merely impartial but generous treatment. This is certainly the impression left on my mind; and yet there is quite enough of statement and evidence afforded—albeit, as I have said, in studiously moderate language—to justify our

frequent allegations against the absurd pictures drawn by certain English visitors and would-be Buddhists.

In referring to his difficulty in dealing with present-day Buddhism, the bishop indeed indulges in one sarcastic (and delicious) sentence which is worthy of being placed alongside of the best of Rudyard Kipling, or of Judge Cunningham in his Anglo-Indian novels. Dr. Copleston says that, "to describe with unhesitating decision the value of a religious system, or the character of an Eastern people, must remain the prerogative of the passing tourist."

In his first chapter, the bishop defines his subject, and shows that of the great variety of shapes Buddhism has taken (in China, Japan, Thibet, not to speak of Burmah and Siam), he proposes simply to describe the primitive stock and one of its existing branches—to show what Buddhism was in Magadha, the land of its origin, and what it is now in Ceylon—rightly insisting that no branch or form has a better claim to be considered the genuine one than the Buddhism peculiar to Lanka. Incidentally and specially in a note to this chapter, the author shows how the total number of Buddhists in the world has been greatly over-estimated, the mistake being to count on the vast proportion of Chinese and Japanese as being in any real sense Buddhists. Dr. Legge is evidently right in saying there are fewer Buddhists than Mahometans in the world; and indeed, he places Buddhism as well after Christianity, Confucianism, and Brahminism, making it the fifth in number of adherents. The bishop is able to quote Mr. Lee's latest census for Ceylon, to show that in 1891 the island had 1,877,043 Buddhists, 723,853 Hindus, 211,995 Mahometans, and 302,127 Christians.

It did not, of course, come within the scope of his volume to remark on the notable increase in the last-named return, the number of Christians in the census of 1881 being given at 267,977, so that the increase of 34,150 is equal to very nearly 13 per cent.; while the total population in the decade only shows an increase of not quite 9 per cent. This advance is all the more satisfactory in view of the energetic attempts made to revive Buddhism during the past ten years.

Chapter II. of the book before us treats of the relation of Ceylon Buddhism to the original stock, and it is shown how the "Northern" and "Southern" types of Buddhism rather belie these terms, "the prosaic and practical Chinese having a form of Buddhism far less simple than the Sinhalese in their gorgeous tropical home." The bishop then enters on a general historical sketch of the life, as far as it can be ascertained, of Gotama, the founder of Buddhism, passing on to a description of his system in the earliest form in which it has reached us, and thence to the events which have affected the Buddhist community, first in India and then in Ceylon, period by period to the present day. The epochs of his "historical sketch" are given by Dr. Copleston as follows:—

Dates of "Gotama himself, founder of the religion, about B.C. 500.

"Asoka, the most powerful patron of early Buddhism, about B.C. 250, and Mahinda, his son, its founder in Ceylon.

"Buddhaghosha, its greatest commentator, about A.D. 400.

"Parakrama Bahu, the greatest Buddhist king of Ceylon, about A.D. 1200.

"Sumangala Terunnanse, the present chief of the 'Community' in Ceylon."

In giving a plain, unvarnished account of Gotama's life, the bishop shows how little there is to justify the exaggerations of "The Great Renunciation" and other similar imaginary accounts; and even though

the Buddhist founder lived to extreme old age, it is not thought that he had attracted more followers than a far humbler teacher, St. Francis of Assisi, attracted to his brotherhood, "though not so many as already, in a shorter time, in these days of railways and printing-presses, have flocked to the standard of General Booth." In regard to Ceylon, the bishop indicates that taking the two centuries before, and the three centuries after, the Christian era, in the first half Buddhism was growing and becoming more and more established in the island, in the latter 250 years it was less flourishing. The 4th century A.D. saw great advances made in literature and art, both devoted to the service of religion. Early in the 5th century, the learned Buddhaghosha, a native of Magadha, came to Ceylon and gave a decisive impetus to Buddhist learning by translating and composing commentaries which have ever since been regarded in Ceylon as absolute authorities in the interpretation of the texts. This work was done at Anuradhapura, the magnificent seat of the Buddhist kings for several centuries. From the 9th century, when the capital was changed to Pollanaruwa, onwards till the time of Parakrama, "the great national hero, and the Augustus of Ceylon," religion languished; the destruction of many shrines and viharas, expulsion of monks, and even persecution of Buddhists resulted. Parakrama, however, promoted and reformed Buddhism, and erected innumerable buildings for its service. Troublous times followed, and Buddhism declined (in spite of getting monks and books at different times from Arracan and Siam), until in the period of the Dutch wars it fell so low that the historian more than once says, "There was not one monk in Ceylon." In the British era "Buddhism became more and more the religion of the less civilised and the less prosperous," until, twenty years ago, it was regarded as well-nigh extinct; but, adds the bishop, the last fifteen years have seen a remarkable revival. This has been due mainly to external influences, and is rather academic than national, but it is a real movement, and has a few leaders of high character. The wave has, however, as I think, already reached its highest point. As a phase of educated thought it may be traceable for some time to come; but as a popular force it is already passing by." So ends the "General Historical Sketch," and Part I. of the volume.

The second part begins in Chapter IV., with the "Life of Gotama," in detail. Among other things he shows how the story of a noble youth, Yasa, has been worked up (by Edwin Arnold among others) into that of Gotama himself, and he further adds that many of the incidents said to have occurred in Gotama's teaching were not really attached to his name till many centuries after his death. On the other hand, I cannot help quoting one special passage sympathetically given by the bishop, but with a very true and necessary note:—

"There are not recorded in the early part of the Pitakas, as far as I know, any special acts of kindness on the Buddha's part, with one beautiful exception. A monk was very ill, and neglected by other monks, both because he was—as he said—of no use to them, and, as is evident from the story, because his condition was repulsive. Then the Buddha said to Ananda, 'Fetch some water, you and I will bathe this monk.' The Buddha poured the water over him, and Ananda wiped him; the Buddha lifted his head, and Ananda his feet, and so they laid him on his bed.

"The terms in which the Buddha rebuked the monks for their neglect, and the last words of the sentence I am about to quote, reach higher, I think, than anything else in the Pitakas, into the levels of Christian teaching! 'You monks have no mothers and no fathers to wait on you.

If you do not wait on one another who will wait on you? *Whosoever would wait on me, let him wait upon the sick.**

"A Christian can only rejoice to quote such a passage as this, and heartily congratulate his Buddhist friends upon it, and invite them to follow it."†

Another passage from this chapter is worthy of quotation on the bishop's own account, as much as for its intrinsic interest. It is as follows:—

"King Bimbisara had considerable influence with the Buddha, and it is said that it was on his suggestion that the institution of Uposatha (Poya days), now one of the most distinctive features of Buddhism, was adopted.

"It had been previously in use among the professors of other religious systems.

"This dependence on, and readiness to be moulded by, royal patronage has always been, in Magadha and in Ceylon, a characteristic of Buddhism. It has always thrived best as an established religion; and the eagerness with which any appearance of government patronage is even now caught at is very curious.

"Buddhism is now the only 'religion' which is in any political sense established in Ceylon."

Elsewhere, Dr. Copleston shows even more clearly (though unwittingly perhaps) the evils of endowments in making the priests careless of their duties; thus:—"The monks of some of the Kandyan monasteries are so well off as not to depend on the 'alms' of the faithful; and hence they are without the stimulus which these low-country brethren have to a life, at least outwardly, conformable to their profession."

Finally, from the "Life of Gotama" it is important to quote the passage in which, an account of his death being given, we have the bishop's illustration (on the best authority) of that much abused and disputed term "Nirwana." After giving Gotama's last words to his monks, the author says:—

"He then entered into the first stage of meditation; thence into the second, the third, the fourth. From the fourth stage of meditation, he proceeded to the realm of the infinity of space, thence to that of the infinity of thought, and so into the realm of nothingness, then into that of neither consciousness nor unconsciousness, and thence into that in which all action of either thought or perception is at an end.

"Ananda, the simple-minded, thought all was over, but Anuruddha, the great metaphysician of the community, said, 'My brother Ananda, this is not full Nirwana; he has entered that state in which all action of either thought or perception is at an end.'

"Nirwana, it appears, is not the culmination of abstraction. The Buddha retraced his course through all these stages of exalted meditation step by step to the fourth, the third, the second, the first; and in the moment of issuing from the first stage of meditation the Blessed One became extinct."

Chapter V. is devoted to "The Buddhist System in general," and the following chapter to the "Ideal of Buddhism"; and it begins by declaring that "the qualities most charming to the Indian mind are gentleness

* Maha Vagga, VIII., 26, 3.

† "At present, I feel bound to say the degree to which the Buddhists of Ceylon—speaking generally—are destitute of the character here attributed to their Founder is shocking, and all but incredible to persons who have lived only in Christian countries."

and calm ; it is to the exhibition of these qualities in a high degree that we can attribute, with the greatest probability, the personal influence of Gotama the Sayan, and his acceptance as the Buddha by his contemporaries." It is pointed out that in the ideal, there is no room for aspiration after praise or reward, or for fear of blame or punishment ; neither heaven nor hell has any proper place in the system. . . The Buddhist saint stands in no relation of dependence towards any being above himself. There is no Creator, no Saviour, no Helper in his purview. Religious duties, properly so called, he has none. He has been his own refuge, his own light ; he is what he is by grace of himself alone. Humility would not become him ; for gratitude he has no occasion. Next, in Chapter VII., we are shown how the beginning and ending of Buddhism is the "abolition of ignorance" ; for ignorance is regarded in Buddhism not simply as the absence of knowledge, but as a positive evil—an active plague. This notion is deeply rooted in the Buddhist mind. "A young man who had been brought up in a Buddhist monastery in Colombo used to express his longing for more education in this way :—'I must at any cost get rid of this ignorance.'" And yet it is not study, culture, or learning that is in the very least meant as requisite in Buddhism : what has to be known (in order to abolish ignorance) is that all which exists is perishable and inevitably subject to sorrow ; that sorrow can be destroyed only by desire and all that is attached to existence, and that Buddhism furnishes the way to the destruction of these : this conviction is what constitutes knowledge." All other learning—of science, geography, astronomy, or even of metaphysics—is disparaged as useless. In Chapter VIII. we have an account of the basis of Buddhist teaching in "the four noble truths or the chain of laws" :—"the fact of sorrow, that desire is the cause of sorrow, that sorrow ceases when desire is removed, that this is effected by a certain course of conduct." Then this conduct is specified in "the Eightfold Way"—"right faith, right resolve, right speech, right action, right living, right effort, right recollectedness, right meditation." Chapter IX. treats of the "Moral System—Disgust and Detachment," and winds up by contrasting the climax of Buddhist attainment, as already quoted in the entrance on *Niwrana*, with a passage from Augustine's "Confessions," giving the Christian aspiration. There is also a note on Transmigration, showing that the idea of an endless succession of lives, through which every individual is passing, occupies a prominent place in Buddhist thought, the disciple being encouraged to dwell upon this idea, until the mere sense of weariness from contemplating so interminable a series arouses his disgust. The next two chapters treat of "the vices"—to be shunned or got rid of—and "the virtues" to be cultivated.

Chapter XII. is on "the precepts," and opens with a passage which should be quoted :—

"In the popular conception of Buddhism by Buddhists now, the most prominent place is occupied, not by the Four noble Truths, or the Twelve *Nidanas*, or the Eightfold Way, but by the five Precepts of Conduct ; the Five Rules in Sinhalese '*Pansil*.' These are the prohibitions of (1) destroying life, (2) taking what is not given, (3) lying, (4) drinking intoxicating liquors, (5) sexual offences. But it is an interesting fact that these do not hold such a place in the original system. They are not found as five in the most ancient manual of discipline. They are not among the discoveries made in right of Buddhahood, nor are they mentioned in the first sermons. They do not occur in those earliest chapters of the *Maha Vagga*, which we regard as containing in a nutshell the authentic kernel of Buddhism. They never occur in any

discourse which bears marks of being more than conventionally an utterance of the Buddha himself."

Chapter XIII. deals with "Special Moral Rules of the Community," and among other things, the bishop shows the utter inferiority of Buddhist morality to Christian, as illustrated in the Sermon on the Mount, or in the Apostle Paul's teaching. "The two moralities have no more in common than a list of bones on paper has with a living body." But far worse; many pages of instruction for the monks specify forms of licentiousness, and "expatiate in regions of impossible and unimaginable obscenity," in a way to cause utter disgust and loathing, and to indicate complete deadness of moral feeling. Indeed in Chapter XIV., on "The Religion of the Laity," Dr. Copleston indicates that the teaching for the ordinary people is much better—that what is put before them in the reward of merit and punishment of demerit is much more of a religion for simple folk than the philosophical morality of the monks. A "general estimate" is afforded in Chapter XV., in which it is shown how entirely the emotions are discarded in Buddhism, and the system thereby doomed to be ineffective. The motive recognised is wholly selfish and individual—it is not for the love of truth or goodness, nor for the benefit of others—it is solely for the individual's own advantage that he is incited to cultivate virtue. The idea of duty is entirely absent. The Buddhist has no aim in life except to escape from it. Buddhism degrades man by denying that there is any being above him; the Brahmin's ideal of absorption into the one Supreme Being is nobler and nearer truth. ["If any doctrine of absorption is to be found in the Southern Buddhism, the texts for it have yet to be produced."] The bishop refuses to offer a contrast with Christianity, it is enough to turn from the Pitakas to a dialogue of Plato, and he shows how much nearer eternal truth is an utterance of Socrates than the teachings of Gotama:—"I cannot for my part," he concludes, "rank this system, regarded as a theory of human life and action, with the best of those which, apart from Divine Revelation, men have formed."

Chapter XVI. is on "Meditation and Supernatural Attainments"; but the next deals with Gotama's teachings on "Caste," and shows that he by no means was the great reformer in this respect that he is generally supposed to have been. Indeed, it is shown that later Brahminism, in the "Mahabharata"—(where indeed there is a great deal that is Buddhist) deprecated caste quite as much as Gotama, showing that a man becomes a Brahmin by his character—that the vicious, evil Brahmin is like a Sudra, and the virtuous Sudra should be considered as a Brahmin. Had it been Gotama's intention to proclaim a revolt against caste, he (and after writers) would not have taught that all the previous Buddhas had been either Brahmins or Khattiyas. Chapter XVIII. deals with the "Disciplinary Rules of the Community," the next chapter with the female "Community." The community of nuns was never in practice, a very important part of Buddhism, either in the primitive Indian system or in Ceylon, though it may have been specially fostered for awhile in Asoka's day. It is represented as an afterthought, and is one reluctantly admitted by the Buddha. "In Ceylon there are no places named after nuns; no stories about famous nuns; none of their dwellings or halls remain; and there are no nuns in Ceylon now." Chapter XX. is headed "Asoka," and affords a very interesting résumé of the history of that great ruler, and of the romantic way in which his identity was worked out from the Mahavanso by Turnour in Ceylon, and by Prinsep, from comparison of many scattered inscriptions and coins in India. Dr. Copleston gives high praise to Asoka; he was

not merely the patron but the apostle of Buddhism, and he shrewdly surmises that it may yet be found Buddhism owes more to the great king and the then leader of the Community Moggali than to Gotama himself. Chapter XXI. closes the second part of the volume with a "Critical History of the Canonical Literature."

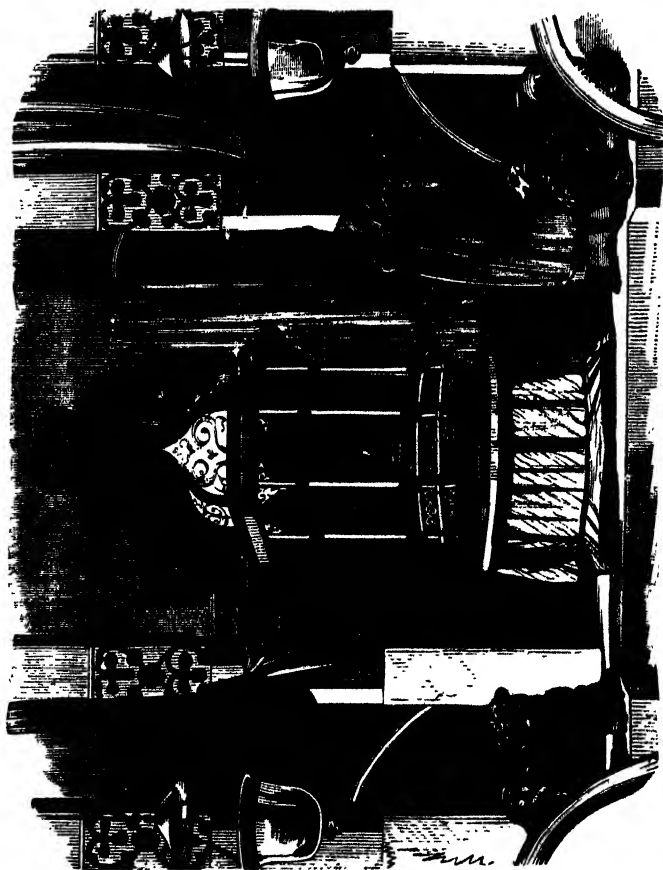
The great interest attached to the contents of this volume must be made manifest even by the imperfect indications of the contents of the different chapters already given by us. But to Ceylon readers, at least, that interest will be much increased on arriving at Part III., which is devoted to "Buddhism in Ceylon," the opening chapter (XXII.) being devoted to "Mahinda and the Conversion of Ceylon." The bishop regards as unhistorical, and indeed fictitious, all that is stated of the Buddha's visits and favours to Lanka—in clearing the island of Yakkhas (devils), in granting to the chief of the local deities or devas (the successors of the Yakkhas) a handful of his pure blue (hyacinthine) locks, which were enshrined in an emerald casket as something worthy of worship; and after his Nirwana, in the thorax bone of Buddha being brought from the funeral pyre and deposited in the same dagaba (or Karanduwa) of emeralds, which was enclosed in a larger one of marble—being the celebrated Mahigangana Dagaba, at Alut Newera in Bintenne, now lost sight of, but once much admired and visited, and situated as near as possible in the centre of the island. Then Buddha visited Ceylon a second time in the time of the "Nagas," whom he pacified and converted, more especially the Naga king of Kelani, whom he again visited in the eighth year of his Buddhahood, when, after being entertained at Kelani, he went to Adan's Peak, there leaving his footprint, thence to meditate at Diglavapi in the east of the island, and at Anuradhapura. All this is fiction, and the Mahavansa chronicle, up to about B.C. 250, little better than a jumble of fairy tales, though it comes out that the compiler represents the religion of the island in those days as Brahmin; nor did Mahinda—with whom we get on historical ground—find any traces of Buddhist visits so far as the accounts go. The mission of Mahinda, the son of the great Asoka, his conversion of the Sinhalese king, the famous Tissa, and the wide establishment of Buddhism in Ceylon are all borne out, not only by what may be taken as authentic narrative in the Mahavansa, but, to a great extent, by Asoka's rock and pillar inscription in Northern India. Tissa's first great work or donation was the Mahavihara of Anuradhapura, on which were to stand the Bo-tree, the Brazen Palace and innumerable sacred places; secondly he constructed rock-dwellings on the hill where Mahinda first appeared, and so constituted the Vihāra of the Shrine Hill, long afterwards named Mihintale; and thirdly, he founded the Thuparama Dagaba, the first of its kind in Ceylon.

The next step was to get the Princess Saughamitta, King Asoka's daughter, to come and initiate the ladies of Lanka (as Buddhist nuns), and to bring with her the right branch of the great Bo-tree. All this was done. Mahinda lived and died at Mihintale. Dr. Copleston accepts the Bo-tree now at Anuradhapura as quite possibly of the stock of Asoka's tree (and therefore as the oldest historical tree in the world), but he shows that there is no evidence that it was the same as the one that Gotama rested under "when he attained the truth."

Further, it is concluded that Mahinda and his companions brought no books or literature about Buddhism, but only what they had committed to memory, and which they so gave (the text of the three Pitakas) to the newly organised Buddhist fraternity at Anuradhapura. In summarising thus briefly, scant justice is done to Dr. Copleston's narrative, which must be read to be properly appreciated. As an appendix to this

chapter, we have "The Lesser Sermon of the Parable of the Elephant's Footmarks."

Chapter XXIII. treats of the period between Mahinda and Buddhaghosha—from the 2nd century B.C. to the 5th century A.D. This includes a troublous time caused by Tamil invasions, and the heroic though heretic Brahmin king Elara; the glorious reign of his con-



SHRINE OF THE SACRED TOOTH: INTERIOR OF THE DALADA MALIGAWA, KANDY.
From a Photograph by H. Humphreys.

queror, the patriot Buddhist king Duthagamini, the latter's erection of the famous Brazen Palace, and the Great Shrine or Ruwanweli Dagaba—a pile of brickwork, even now, out of which a city might be built, and first put together about B.C. 160. Dr. Copleston rightly regards as "an audacious legend" the assertion that the relics of Buddha placed in this shrine were those set aside at the time of Gotama's death for the future sanctification of Ceylon, and now obtained from the mysterious Naga world!

The next step of interest was about B.C. 90, when another great dagaba, the Abhayagiri, was erected, and a rival fraternity grew up, stigmatised by that of the Maha Vihāra as "heretic" because holding certain excluded Buddhist books to be authoritative. It was at this time that the oral teaching was first recorded in books. But this division for fourteen centuries marred the unity of Buddhism in Ceylon.

There is no need to refer to the wars with the Tamils, and troubles of the monks during the next three hundred years.

In the 4th century, an image of Mahinda was made and worshipped (sculpture flourished), and soon after a Brahmin Princess brought from Kalinya "the Sacred Tooth of Buddha," and the cultus of that relic began. There was a literary movement, marked by the compilation of the Mahavansa, fabulous almost entirely, before the date of Mahinda, and largely mixed with fables after that period. The visit of the Chinese Buddhist, Fa Hien (about A.D. 412), is next noticed, with its testimony to the grandeur of Anuradhapura with the Bo-tree, the Vihāra of Buddha's tooth, a splendid image of Buddha made of green jade 20 cubits high (?), the great dagabas in all their "glory," the procession of the tooth, etc. But the bishop would take a cypher off Fa Hien's figures when he writes of there being 60,000 monks in the island, 5,000 in the Abhayagiri monastery, 3,000 in the Maha-vihāra; and the same weakness doubtless affects the height of the Abhayagiri dagaba, "400 cubits grandly adorned with gold and silver, and finished with a combination of all the precious substances."

Next we come, in Chapter XXIV., to Buddhaghosha ("the second founder of Buddhism in 'eylon") and his commentaries, whose visit is put at between A.D. 412 and 434. This I will pass over, save to make one quotation in reference to a Buddhist work, the "Questions of King Milinda" (Meander, the Greek king of Bactria, B.C. 140 to 110, the book having been written long after).

The bishop here deals rather too mildly with Rhys Davids, considering the audacity of his insinuation in one direction.

Professor Rhys Davids says: "I venture to think that the 'Questions of Milinda' is undoubtedly the masterpiece of Indian prose; and indeed is the best book of its class, from a literary point of view, that had then been produced in any country." The first part of this sentence I will not dispute, and I do not know how much may be meant by the latter part. But the reader who should expect from the Milindopanno the humour, the human interest, the charm or the inspiration of Plato, would prepare for himself a cruel disappointment.

"A general sketch of Ceylon History from Buddhaghosha to Parakrama" follows in Chapter XXV. This is given as told in the Mahavansa, but does not contain much of interest in the face of prolonged Tamil usurpation, the removal of the capital to Polonnaruwa, the short-lived prosperity of King Vigaya Bahu, simultaneous with William the Conqueror's arrival in England—until the advent of the illustrious Parakrama, whose story is almost an epic poem. Of his conquests in and beyond Ceylon, his establishment of Buddhism with innumerable temples, dagabas and monasteries, his construction of gigantic tanks, still bearing witness in their remains or restoration, it is needless to speak; nor need I dwell on the internal history of "The Community in the Middle Ages," which is the subject of the next chapter, save to notice what is said of the results of the Abhayagiri secession (about B.C. 100), and that of the Jetevana (an offshoot from the former), about A.D. 300. On page 487 there is what I take to be a printer's blunder, though it is

not noticed in the small slip of "Corrigenda" at the beginning. We are told: "In Silomeghavanna's reign (A.D. 614) the Abhayagiri fraternity were in very bad *order*"—*odour* no doubt the bishop wrote. There were quarrels between the rival fraternities, although all were "tolerated," and even King Parakrama failed in earnest attempts to unite them, though certain reports give him credit for settling divisions.

After his death there are no more references to division, probably because all the fraternities localised at Anuradhapura fell into decay. The intermixture of Hinduism with Buddhism is next noticed, and we are told that nothing is said of the "Community of Nuns" in any records after A.D. 939. They died out in that century, and seem never to have been revived in Ceylon.

Chapter XXVII. sketches "From Parakrama to the Arrival of the Dutch." While the great king has eighteen chapters of the Mahavamsa devoted to him, one short chapter following disposes of "the reigns of sixteen kings," a pitiable time of disaster and disgrace. Kandy was founded by Vera Vikkama A.D. 1542, and in 1550 King Rajasinha apostatised from Buddhism and established Saivism as the court religion, persecuting the Buddhist monks.

The Portuguese get a bad character in the Mahavamsa, and the Olandas (Dutch), who were called in to punish them turned out no better. A note to this chapter gives a succinct summary of Robert Knox's experience in the Kandyan country, as prisoner in Rajasinha II.'s time, 1660 to 1680.

The last (Chapter XXVIII.) of Part III. is devoted to "Later Revivals of the Community," and refers to the several periods at which Buddhism, being nearly extinct, was revived by the introduction of foreign monks. This occurred three times (A.D. 1065 onwards) at intervals, before the Siamese priests were got in 1740, and again in 1750; but only members of the Vellala caste being considered eligible by them as priests in 1802 the Burmese or Anarapura sect came in, and was established in the interests of three other castes.

We have now arrived at the fourth and last part of the bishop's volume, and this division in 70 pages deals with "the present," Chapter XXIV. being devoted to the Buddhism now taught in Ceylon. The moral system as taught now differs little from that in the sacred books, and Dr. Copleston does not agree that the Sinhalese relearned this part of their religion from European Pali scholars. Knox's sketch and the answers to the questions put by the Dutch Governor Falch are adduced as evidence of the continuance of the teaching. It is noticed that for "prayer," properly so-called, there is no room in Buddhism, nor indeed for "public service"—"to offer gifts and and hear the Law" are the only duties for which Buddhist householders are to come to the dwellings (Vihāra) of the monks. In the regions of history and cosmogony, on the other hand, there is a wide interval between the early teaching (Pitakas) and the later tradition—an immense accumulation of extravagant romance; and so the bishop winds up this section as follows:—

"It is not enough then in answering the question, What has been the religion of the Sinhalese? to point to the Pali canon, and to what are logically and historically the fundamental parts of Buddhism. The later and more imaginative portions are truly part and parcel of the Buddhism of the Sinhalese, perhaps the part which is most endeared to them. The Five Prohibitions and the Poya days, the duty of sparing life and the opportunity of giving to the monks—these by themselves could hardly have gained a permanent hold over the hearts of a people; but other attractions besides these have been at work. All their stories of

home and childhood, all their national literature, all that was grand to them in history and science; the conquests of their kings, the great buildings of their country, all were engaged in the interests of Buddhism. Not a building but had on it the lotus or the hare in the moon; not a ballad but it opened with homage to the Buddha, to the law, and to the community. Close to every great tank from which the fields were irrigated shone the white dome of the dagaba.

"There are strong roots everywhere twisted into the soil; many of them, however, are slowly but surely dying. Education is steadily destroying all belief in Mount Meru and the 'Sakwallas,' and converting the long range of former Buddhas from an imposing decoration into an encumbrance. The national literature is rapidly being forgotten; not many can even read it, and only a few old people now can say by heart the favourite old stanzas which once were household words. Of the great monuments of architecture, some, it is true, are being repaired; but by repair they are disenchanted, and the modern Sinhalese prefers an upstairs house on an English model to all the palaces of the Parakramas.

"Buddhism, if it lasts, will soon rest entirely on other supports than these; on that which is good and true in its own teaching, on its alliance with Western scepticism; and lastly, on that deep root, as yet alas! vigorous, which it has struck into the dark places of sorcery and superstition."

We now come to the penultimate Chapter (XXX.) on "Modern Monastic Life," and the last (XXXI.) on "Present Customs and Conduct of the Buddhist Laity in Ceylon," and these are so full of interesting information and important inference, that nothing but their entire transcription into one summary review could give an adequate understanding of them. I must, however, only attempt a brief running notice, with the embellishment of a few sentences from the book. In the opening of the two chapters there is, at first sight, a curious contradiction presented to the reader by the author. He says in beginning Chapter XXX.: "Wherever Buddhism is to be found in Ceylon, it is substantially the same"; but in treating of his difficulties at the opening of the last chapter, he writes:—"There are two Buddhisms now in Ceylon: the residuum of the old Buddhism as it has shaped the habits and ways of thought of those who are not under European influence; and a new revival much more self-conscious and artificial," and influenced very largely by Europeans. The contradiction is, however, only apparent; in the one case, moreover, the author is more particularly referring to the monks and their life and teaching (if any), and in the other to the customs of the laity; still, "the distinction of four (three) sects or societies," peculiar to Ceylon, has to be given:—those of "Siam, Amarapura, Ramauya (Rangoon) and Kelani." The last, however, has only a provincial or boundary distinction, being one with the Siamese, a distinct college of monks but not a separate sect. The differences between the other three sects of monks or priests may be succinctly summarised:—The Siamese, with its home in the Kandyan country, but also largely represented by 20 per cent. of the priests in maritime provinces, admit only Vellalas (and giving as a reason the command of King Kirti Sri Raja), wear the yellow robe only over the left (not the right) shoulder (according to a scriptural order); these monks, moreover, after receiving alms, utter a short blessing (while those of the other two sects, in stricter conformity to "Vinaya" rules, depart, as they came, in silence). The Siamese again, in reading the sacred books, divide the duty between two readers simultaneously—one giving the

text, the other interpreting—"the two-seat" custom (while the other sects have only one seat, one monk both reading and interpreting). And finally, while the Siamese monks cut their eyebrows (which the others do not), they also disallow a formula in connection with gifts, which seems to recognise the Buddha as still living. This formula the others use, saying the deceased Buddha may be represented by his relics.

The Amarapura or Burmese sect and the Ramauya sect should have their most notable distinctions in the proudest characteristic of Buddhism (if it were real), namely, opposition to caste; but while professing to admit all castes to their priesthood, in reality they confine it to three divisions: the fishers, cinnamon-peelers and toddy-drawers,—making the trivial excuse that there are never any in the castes below the first four fit to be admitted! This is of course utterly indefensible; for as the bishop says, he has known men of ability and character of the dhobies' and goldsmiths' castes equal to any in the other divisions. All these sects are therefore to be condemned on the caste question. The Siamese hold nearly all the temple endowments in land, and the lucrative shrines of Kandy, Anuradhapura, Adam's Peak, Kelani and Tissamaharama. It is supposed that of the 9,598 Buddhist priests in the island (census of 1891), half belong to them; while 34 per cent. (or say one-third) are of the Amarapura, and 16 per cent. of the Ramauya. That would make :—

Siamese monks in Ceylon (about) ...	...	...	...	...	...	4,800
Burmese or Amarapura ...	...	...	...	...	...	8,200
Ramauya ...	...	...	...	...	...	1,600

And yet the smallest is not the least influential branch, for they are confessedly founded on purer teaching and stricter practices; they own no lands, use no smart robes or silk umbrellas (only the native palm umbrella), they avoid all Hindu rites and temples, and denounce the worship of the lower "deities." Their lay followers pay no respect to the erring Siamese or Amarapura monks. The leader of this strict body of Reformers, the Ramauya, is Ambagahawatte Unnanse of Payyagala near Kalutara. The Ramauya monks are not admitted, or do not go, to the Kandy Tooth Temple. The Amarapura sect have acquired, and are acquiring, a good deal of land in the low country; it is the most prominent in aggression, in controversy and in street preaching, and is the great ally of the Theosophists. Of these distinctions, foreign monks (a few of whom visit Ceylon occasionally now) know nothing. Ceylon monks very seldom travel, and very few of them, even of the more learned, had ever heard of Budh Gaya till the last two or three years.

Service tenures and land endowments go a great way to attract Sinhalese to the priesthood, and it is asserted on good authority that if lay trustees really took over the temple property (under the "Buddhist Temporalities" law) and administered it for the common benefit, not one in a hundred of those who now become priests would do so. A single Pansala (priest's residence) has usually two or three monks; four or five is a large pansala; the great central Argeriya and Malwatte colleges are ruled to have each twenty, but have now forty or more in each; but in the vast majority of homely villages a monk and a novice live in each pansala. No arrangement is made for a periodical Assembly or Council; but Dr. Copleston gives full particulars of the assembly of priests by private invitation in one place or village, or the "pinkama" (act of merit), which is in arranging to hear the monks read. Still more important is a "Baun-Pinkama," a reading of the sacred books lasting

over fifteen or thirty days, attended by many monks, some drawn from the colleges. Such gatherings afford great entertainment, more than instruction, to the Sinhalese people, being regarded as a regular holiday festival; and one part of the fun seems to be in watching which of the monks read the fastest. Their Poya days at the temples and a few other occasions of ceremony are referred to. As regards the food supply of the monks obliged to beg—only in the very poor districts, or where Buddhism is not a power, is the life of the mendicant hard; and Colombo is described as a particularly hard place, so few of the people caring for the monks. It may be questioned, Dr. Copleston says, whether the rules of Buddha do strictly require monks to teach the young; but public opinion expects it, and he thinks it rare for a monastery to offer no teaching at all. (Surely the bishop does not include the neglected province of Uva in this experience?) As regards study among the monks, anything deserving of the name is confined to very few. Meditation in any regular form is absolutely unknown, and there is no pretence to, or expectation of, supernatural powers; and it will be well for Mrs. Besant and her companions to know that Ceylon Buddhists always laugh with utter incredulity at the stories of "Esoteric Buddhism," and say, "Perhaps there may be such things in Thibet." No one even pretends to take seriously the system of "paths," or enter on any of higher walks of Buddhism. But priests practise freely what is strictly forbidden by Buddha, namely astrology, medicine (native fashion), and framing horoscopes. "The pretence to supernatural powers is one of the things which make the more genuine Buddhists (despise the Theosophists." An account is given of the admission of boys and training of novices, and then the author winds up this chapter with his opinion as to the general character of the Buddhist priests or monks in Ceylon:—

"On the whole the lives of two-thirds (of the monks) are bad. More than one whom I have asked, has told me that he knows personally three or four places in the Kandyan country where theft and forgery go on, and supposes there are ever so many more. Very few monks are chaste; many go to women in villages; very many are guilty of nameless vices. In the Vidyodhya College, the influence of Sumangala and of Heyantuduwe (from a Cotton village) is powerful for good; and the lads while at the College for the most part lived well; but must return to their bad lives when they get back to their pansalas."

My statement to the same effect made some months ago before the Council of the Liberation Society was rather challenged by a well-known M.P. and accomplished educational reformer, but I think it is fully justified in the above by Dr. Copleston, however regrettable the fact may be.

Lastly, in the closing chapter we have pictures of Buddhism in the two extremes already referred to: the bishop first gives a very lifelike word-painting of a visit to a secluded village priest and temple (say in the Kegala district), describing the approach, the low-roofed hut under the rocks, the few palms, the yellow-robed lad and the old monk, singularly courteous though very ignorant, offering the young coconut cut open by his razor, showing his two or three palm books of a few leaves each, leading (when asked) to the temple or vihara, chiefly notable for an inscription on the rock which he cannot read. Then we see how the villagers care nothing about the priest or temple practically, how they live in a world of demons, and though the monk casts horoscopes, their real pastor is the Kapurala or devil-priest who exorcises the demons. That is one extreme: the other is found in the Oriental

Library of the Colombo Museum, where yellow-robed students with pen and note-book are at work on old Pali MSS., with copies of *The Buddhist* newspaper (in English) on the table, giving reports of Buddhist schools, meetings, cremations, conversions, subscriptions, and paragraphs with abuse of Christianity; while the "Birthday of our Lord Buddha" is celebrated with decorations, lamps and processions in many of the streets, and "carols" by night. Here, too, a monk may be found visiting the sick in the hospital, or teaching criminals in prison, or preaching at the street corners after the fashion of the Christian missionary. What is fabulous in the old Buddhist system is ignored by the advanced party, and modern discoveries and Western philosophy are claimed as allies of Buddhism; and the revival has affected even rural native districts by the diffusion of education among monks, and by the restoration of ancient shrines. In Colombo, visitors and passengers are reminded there is scarcely any Buddhist institution that is not new; and there are manuals published by the leaders of the modern school, showing what is expected of adherents in the Five, or the Eight Precepts and the Ten Obligations; and on "Poya" days. Then we have the *Buddhist Catechism* (in English), issued in 1881, which gives the principal points in the received biography of Gotama, a statement of Buddhist morality (coloured by Christian associations), and certain legends. The inconsistencies shown by Buddhist teachers in claiming the support of modern science—evolution—are proved by the tolerance of superstition and virtual polytheism in their system; and the ignoring and yet acknowledging of God and Lord are deplorable. The living Buddhist does, as a fact, believe in a personal Deity: and herein his belief is better than his creed.

Finally, the bishop offers an estimate of the result, which, so far as he can learn, Buddhism has effected in Ceylon for virtue: the estimate is not a high one. He can scarcely anywhere learn of conduct influenced by religious (Buddhist) principle. Instances of "giving" for various purposes are found, and abstention from taking the life of animals; but even in the most ordinary matters of kindness to each other Sinhalese Buddhists fail grievously; so in respect of truthfulness and honesty; while the list of homicides—showing how the Sinhalese stand first in the world—proves how little hold Buddhism has taken, even if allowance be made for the wearing of open knives by the moral Sinhalese. Then, in conclusion, I cannot do better than give the last page of this very weighty, learned, and carefully compiled volume, certain to be regarded as a standard work for many years to come:—

"While I cannot in honesty give a better account than this of the generality, I can heartily say that there are individuals who, as Buddhists, are setting a good example and doing their best to teach others what is good. Such ought not to be offended if I reckon them as friends of Christianity rather than as opponents.

"As promoters, in the long run, of Christianity, I reckon all who are diffusing knowledge of the true tenets and history of Buddhism: all who are letting in light, by whatever channel, into the dark places—and some very dark places exist, and cruel habitations;—all who are insisting in what is excellent in Buddhism, when they do so not merely to praise Buddhism but to get virtue practised.

"If the chosen ground of Buddhism is kindness, and, as the *Buddhist Catechism* says, justice, it is on that ground I should like to contend with them; and let those who are kindest and justest win.

"My challenge to my Buddhist neighbours is this—this is what I ask them to do and what their principles, I believe, would justify:—

"Teach the highest possible doctrines of purity, kindness, and justice.

"Make the lives of the 'priests' examples of these virtues.

"Discourage openly and utterly all demon worship, charms, astrology, and idolatry.

"While using sober argument in the proper place, abstain from all abuse of the faith of others.

"Admit that the doctrines of a Creator and Rewarder, of a Saviour from sin, of a Helper in the road to holiness, of an immortal life, are doctrines characteristic of Christianity."

APPENDIX IX.

RESULTS OF THE CENSUS OF CEYLON, 1891.

[NOTE.—The sign — signifies decrease per cent. in the decade, and the sign + increase per cent.]

THE ISLAND.

	1881.	1891.	
Population of Ceylon (excluding the military, shipping, and estates)	2,554,805	2,748,942	+ 7.4
The military	1,658	2,188	+ 28.9
The shipping	2,588	8,446	+ 88.1
Estate population	304,983	258,713	+ 26.2
Population of Ceylon (including the military, shipping, and estates)	2,763,984	3,008,289	+ 8.8

WESTERN PROVINCE (including the Municipality of Colombo).

Population (exclusive of the military and shipping) ..	671,500	761,846	+ 13.4
Persons in military buildings	1,057	1,859	—
" on board vessels	618	1,802	—
Population (including the military and shipping) ..	673,175	764,007	+ 13.5

COLOMBO DISTRICT (exclusive of Municipality)

Population (exclusive of the military and shipping) ..	279,286	319,834	+ 14.3
Persons in military buildings	9	128	—
The shipping	68	75	—
Population (including the military and shipping) ..	279,363	319,882	+ 14.4
Aintkuru korale South }	43,297	48,327	+ 11.6
Ragam pattu	46,695	56,815	+ 21.7
Hewagam korale	74,854	82,850	+ 10.8
Salpiti korale	105,922	121,799	+ 15.0
Stiyane korale	9,018	10,084	+ 11.8
Anibatalenpahala	—	8,753	—
Estate population in the Colombo district ..	—	—	—

COLOMBO MUNICIPALITY.

	Males.	Females.	Persons.
Fort Ward	1,070	117	1,187
Persons in military buildings	976	83	1,059
Pettah Ward	5,890	2,073	7,463
St. Paul's Ward	9,591	6,722	16,313
St. Sebastian Ward	4,458	3,492	7,945
Kotahena Ward	7,277	5,993	13,270
Mutwal Ward	7,512	7,128	14,640
Persons in military buildings	9	—	9
New Bazaar Ward	7,648	6,773	14,421
Maradana Ward	12,656	10,881	23,587
Slave Island Ward	7,566	5,885	13,451
Persons in military buildings	108	60	168
Kollupitiya Ward	7,691	5,872	13,468
Total	71,847	55,079	126,926
On board ships in Colombo Harbour	1,009	43	1,052
Total	72,856	55,122	127,978

WESTERN PROVINCE (*continued*).

NEGOMBO DISTRICT.		1881.	1891.	
Population (excluding the shipping)	.. ..	116,691	132,576	+ 13.6
The shipping	.. ..	19	105	—
Population (including the shipping)	.. ..	110,710	132,681	+ 18.7
Local Board of Negombo as it was constituted in 1881		9,141	9,466*	+ 3.5
Population of Local Board as at present constituted		—	18,861	—
Alutkuru korale north (including Local Board of Negombo)	.. ..	94,154†	105,308	+ 11.8
Population of Alutkuru korale as at present constituted	.. ..	—	86,447	—
Ilapitigam korale	.. ..	22,587	27,268	+ 21.0
Estate population in the Negombo district	.. ..	—	2,179	—

KALUTARA DISTRICT.

Population (exclusive of the shipping)	165,021	183,746	+ 11.8
The shipping	13	70	—
Kalutara district (including the shipping)	165,034	183,816	+ 11.4
„ Local Board	10,211	10,881	+ 6.7
„ Totamune	70,075	73,357	+ 4.6
Pasdun korale	82,244	40,356	+ 25.1
Rayingam korale	52,491	59,152	+ 12.7
Estate population in the Kalutara district	—	4,195	—

CENTRAL PROVINCE.

Population (excluding the military and estates)	324,083	291,671	— 10.0
The military	189	284	+ 50.3
Estates	149,636	180,654	+ 20.7
Population (including the military and estates)	473,858	472,609	— 0.8

KANDY DISTRICT.

Population (excluding the military and estates)	213,108	187,665	— 11.9
The military	189	284	+ 50.3
Estates	75,229	99,699	+ 32.5
Population (including the military and estates)	288,521	287,648	— 0.8
Kandy Municipality	22,026	20,252	— 8.0
The military	189	284	—
Harispattu division	34,594	29,570	— 14.5
Estates	973	973	—
Pata Dumbara division	87,427	83,139	— 11.4
Estates	12,124	11,120	— 8.8
Pata Hewaheta division	17,044	13,925	— 18.3
Estates	6,430	5,070	— 21.1
Tumpane division	11,991	11,521	— 3.9
Estates	479	513	+ 7.1
Uda Bulatgama division	20,590†	13,289	— 35.4
Estates	32,597	57,957	+ 77.8
Uda Dumbara division	20,403	18,965	— 7.0
Estates	5,046	4,309	— 14.6
Udunuwara division	13,848	12,686	— 8.4
Estates	406	583	+ 44.8
Udupalata division	19,781	1,9647	— 0.7
Estates	14,625	1,6283	+ 11.3
Yatinuwara division	15,399	14,671	— 4.7
Estates	2,549	2,886	+ 13.2

MATALE DISTRICT.

Population (excluding estates)	68,473	61,076	— 10.8
Estate population	18,182	15,425	— 15.2
Population (including estates)	86,655	76,501	— 11.7
Local Board of Matale	4,082	4,197	+ 4.1
Matale South	31,747	26,361	— 17.0
Estates	11,780	10,151	— 18.8

* Population according to limits of 1881.

† Including Four Gravets of Negombo beyond Local Board.

‡ Including railway extension labourers.

CENTRAL PROVINCE (continued).

	1881.	1891.	
Matale North	17,759	16,651	— 6·2
Estates	1,068	5,127	+ 882·8
Matale East	14,685	18,867	— 7·1
Estates	5,839	147	— 97·2

NUWARA ELIYA DISTRICT.

Population (excluding estates)	42,457	42,980	+ 1·1
Estate population	56,225	65,580	+ 16·5
Population (including estates)	98,682	108,460	+ 9·9
Nuwara Eliya Local Board and outside Local Board	1,791	2,726	+ 52·2
Kotmale division	14,402	15,582	+ 7·8
Estates	42,128	50,908	+ 20·8
Uda Hewaheta division	15,700	14,885	— 5·2
Estates	6,754	6,854	+ 1·5
Walapane division	10,564	9,787	— 7·8
Estates	7,848	7,768	+ 5·7

NORTHERN PROVINCE.

Total population (exclusive of the shipping)	302,500	318,989	+ 5·4
The shipping	627	724	—
Total population (including the shipping)	303,127	319,663	+ 5·4

JAFFNA DISTRICT.*

Population (excluding the shipping)	265,588	279,045	+ 5·7
„ (including the shipping)	265,962	279,629	+ 5·1
Jaffna division	39,855	48,062	+ 8·1
Valikamam east division	20,462	21,187	+ 8·5
„ north division	86,326	40,482	+ 11·8
„ west division	38,974	42,682	+ 9·5
Vadamarachchi east	4,218	4,077	— 3·3
„ west	48,456	45,792	+ 5·4
Temmarachchi division	39,462	37,920	— 3·9
Pachchilaippalli division	6,501	5,779	— 11·1
Karachchi division	2,541	1,791	— 29·5
Punakari division	5,288	4,769	— 9·7
The Islands division	28,505	31,524	+ 10·6
The shipping	879	584	—

MANNAR DISTRICT.

Population (excluding the shipping)	21,848	24,898	+ 14·3
„ (including the shipping)	21,996	24,588	+ 18·6
Mannar Island division	10,046	10,445	+ 4·0
Mantai division	4,579	5,422	+ 18·4
Nannaddan division	6,728	8,526	+ 26·8
The shipping	248	140	—

MULLAITIVU DISTRICT.

Total population	7,638	842	— 8·9
Karikkaddumulai division	5,015	5,006	— 0·2
Muliyavalai division	1,846	1,647	— 10·8
Tunukkai division	777	689	— 11·3

VAVUNIYA DISTRICT.

Total population	7,981	8,159	+ 2·9
Chinnachchedikulam division	1,743	1,598	— 8·6
Kilakkumulai division	8,848	4,012	+ 4·3
Melpattu division	1,518	1,667	+ 9·8
Panankamam division	822	887	+ 7·9

SOUTHERN PROVINCE.

Population (excluding the military, shipping, and estates)	482,848	484,990	+ 12·2
The military	184	—	—

* From figures furnished by the Government Agent.

SOUTHERN PROVINCE (*continued*).

	1881.	1891.	
The shipping	1,075	855	— 67.0
Estate population	1,172	4,322	+ 268.8
Population (including the military, shipping, and estates)	454,770	489,06	+ 12.6

GALLE DISTRICT.

Population (excluding the military, shipping, and estates)	209,157	220,544	+ 5.4
The military	184	—	—
The shipping	1,046	846	— 66.9
Estate population	523	2,212	+ 322.9
Population (including the military, shipping, and estates)	210,910	228,102	+ 5.8
Galle Municipality	31,743	33,505	+ 5.7
The military	184	—	—
The shipping	1,028	346	— 66.3
The Four Gravets of Galle (beyond Municipal limits and Akkima division)	20,341	18,738	— 7.9
Estates	—	177	—
Gangaboda pattuwa	23,540	25,671	+ 9.0
Estates	132	1,376	+ 656.0
Wellaboda pattuwa	48,818	54,702	+ 12.0
Estates	295	437	+ 48.1
Talpe pattuwa	44,131	45,325	+ 2.7
Estates	—	92	—
Walallawiti korale	35,712	36,980	+ 3.0
Estates	—	—	—
The shipping	18	—	—
Hiniduma pattuwa	4,872	5,614	+ 15.2
Estates	46	124	+ 169.6

MATARA DISTRICT.

Population (excluding the shipping and estates) ..	151,274	175,355	+ 15.9
The shipping	29	9	—
Estate population	649	2,110	+ 225.1
Population (including the shipping and estates) ..	151,952	177,474	+ 16.8
Matara Local Board	7,522	8,594	+ 14.2
The Four Gravets (outside Local Board limits) ..	12,349	14,982	+ 21.8
Wellaboda pattuwa	30,425	37,978	+ 24.8
Welligam korale	41,448	46,370	+ 11.0
The shipping	20	9	—
Estates	—	125	—
Gangaboda pattu	27,382	31,180	+ 13.9
Estates	—	306	—
Morawak korale	12,773	13,822	+ 8.2
Estates	649	1,670	+ 158.7
Kandaboda pattu	19,380	22,420	+ 15.7

HAMBANTOTA DISTRICT.*

Total population	71,917	89,091	+ 23.9
Hambantota, the Four Gravets of	2,045	2,446	+ 19.6
Magam pattu (exclusive of the Four Gravets) ..	3,795	5,586	+ 47.2
Girawa pattu East	8,950	10,760	+ 20.2
" " West	57,127	70,299	+ 23.1

EASTERN PROVINCE.

Population (excluding the military and shipping) ..	127,555	148,050	+ 16.1
The military	228	495	+ 117.1
The shipping	268	1,065	+ 297.4
Population (including the military and shipping) ..	128,051	149,610	+ 16.8

BATTICALOA DISTRICT.†

Population (excluding the shipping)	105,358	122,490	+ 16.3
The shipping	47	88	—
Population (including the shipping)	105,405	122,578	+ 16.3

* From figures furnished by the Assistant Government Agent.

† From figures furnished by the Government Agent.

EASTERN PROVINCE (*continued*).

	1881.	1891.	
Batticaloa town	6,004	6,380	+ 6.8
The shipping	47	88	—
Bintenna pattu	3,073	8,638	+ 18.2
Chammanturai and Nadukadu	6,942	9,837	+ 41.7
Eravur, Rukum, and Koralai	14,861	19,321	+ 33.4
Eruvil, Porativu, and Karavaku	28,020	32,074	+ 16.6
Mammunai pattu (exclusive of town)	30,541	31,468	+ 3.0
Nintavur and Akkarai pattus	13,627	15,982	+ 16.9
Panawa	2,260	2,745	+ 19.9

TRINCOMALEE DISTRICT.

Population (excluding the military and shipping)	22,197	25,560	+ 15.1
The military	228	495	+ 117.1
The shipping	221	982	+ 344.8
Population (including the military and shipping)	22,646	27,037	+ 19.3
Trincomalee town	9,781	11,411	+ 17.3
The military	228	495	+ 117.1
The shipping	221	982	+ 344.8
Kaddukkulam pattu	3,512	4,079	+ 16.1
Koddiyar pattu	4,764	5,441	+ 14.2
Tampulakamam pattu	4,190	4,629	+ 10.5

NORTH-WESTERN PROVINCE.

Population (excluding estates)	200,589	316,246	+ 5.8
Estate population	2,738	3,528	+ 28.8
Population (including estates)	293,827	319,774	+ 9.0

KURUNEGALA DISTRICT.

Population (excluding estates)	212,684	228,423	+ 7.4
Estate population	2,539	1,665	— 34.4
Population (including estates)	215,173	230,088	+ 6.9
Kurunegala town and gravets	4,221	4,076	+ 10.8
Dambadeniya hatpattu	35,374	38,740	+ 9.5
Estates	—	628	—
Dewameddi hatpattu	32,044	32,415	+ 1.1
Hiriyala hatpattu	29,727	29,374	— 1.2
Katugampola hatputta	39,988	47,863	+ 18.4
Estates	—	9	—
Wanni hatpattu	34,606	37,051	+ 6.9
Wendawili hatpattu	36,614	38,804	+ 6.0
Estates	—	1,033	—

CHILAW DISTRICT.

Population (excluding estates)	51,861	61,800	+ 18.2
Estate population	199	1,868	+ 836.2
Population (including estates)	52,060	63,668	+ 21.3
Pitigal korale North	11,605	13,535	+ 16.6
Estates	199	456	+ 129.1
Pitigal korale South	40,256	47,705	+ 18.6
Estates	—	1,407	—

PUTTALAM DISTRICT.

Total population	26,094	26,528	+ 1.6
Puttalam Local Board	5,085	5,085	— 1.0
Demala hatpattu	6,911	7,014	+ 1.5
Kalpitiya division	8,108	6,981	— 14.5
Puttalam division	5,960	7,548	+ 25.9

NORTH-CENTRAL PROVINCE.

Population	60,146	74,606	+ 12.8
Anuradhapura town	1,300	2,497	+ 92.1
Nuwaragam korale	4,073	4,967	+ 21.7
Kende korale	4,312	5,151	+ 19.4
Kanadara korale	3,721	4,123	+ 10.8
Kadawat korale	4,904	5,608	+ 14.3
Eppawala korale	3,014	3,558	+ 18.0

NORTH-CENTRAL PROVINCE (*continued*).

	1881.	1891.		
Wilachchiya korale	5,034	5,800	+	5.3
Kalpe korale	3,478	4,002	+	17.6
Kunchuttu korale	3,831	4,416	+	15.3
Mahapotane korale	2,765	2,920	+	5.6
Udiyankulama korale	3,043	3,590	+	18.0
Ulagalla korale	3,348	3,030	+	8.4
Matombuwa korale	2,563	3,181	+	23.2
Negampaha korale	1,920	2,040	+	6.2
Unduruwa korale	2,758	2,478	-	10.1
Kiralawa korale	3,142	3,873	+	7.3
Maminiya korale	3,140	3,216	+	2.4
Kelegam korale	4,703	5,177	+	10.1
Tamankaduwa	5,097	5,349	+	4.9

PROVINCE OF UVA.

Population (excluding estates)	128,450	127,552	-	0.7
Estate population	87,242	82,337	-	18.2
Population (including estates)	165,692	159,889	-	3.5
Local Board (Badulla)	4,746	5,548	+	16.9
Yatikinda division	22,322	20,796	-	6.8
Estates	18,802	12,266	-	11.1
Udukinda division	29,731	30,750	+	3.2
Estates	5,105	5,522	+	8.2
Wiyaluwa division	15,896	15,461	-	2.7
Estates	5,028	4,448	-	11.5
Bintenna division	8,366	9,060	+	8.3
Wellassa division	22,482	21,571	-	4.1
Estates	129	188	+	45.7
Buttala division	15,861	15,803	+	1.6
Estates	923	985	+	6.7
Wellawaya division	9,486	8,753	-	7.7
Estates	12,255	8,923	-	27.1

PROVINCE OF SABARAGAMUWA.

Population (including estates)	225,829	258,414	+	14.4
„ (excluding estates)	213,636	230,669	+	6.9

DISTRICT OF RATNAPURA.

Total population	105,874	107,924	+	1.9
Population (without estates)	98,949	102,023	+	3.1

Korales.

Atakalan	15,872	16,262	+	2.4
Kadawatu	8,926	8,907	-	0.2
Kolanna	8,456	9,733	+	15.1
Kukulu	6,081	6,216	+	3.5
Kurawiti	24,264	26,798	+	10.4
Meda	12,262	11,981	-	2.7
Nawadun	28,088	22,103	-	4.2
Estates	6,825	5,896	-	14.8

DISTRICT OF KEGALLA.

Total population	119,955	150,490	+	25.4
Population (without estates)	116,687	123,641	+	10.2
Estate population	3,268	21,849	+	568.6

Four Korales.

Beligal	31,306	34,313	+	9.6
Galboda	20,431	20,005	-	2.1
Kinigoda	13,270	15,138	+	14.4
Pananakuru	28,672	25,011	+	5.6

Three Korales.

Atulugam	7,686	9,255	+	20.4
Debigampal	10,202	13,260	+	29.9
Panawal	4,433	5,114	+	15.4

Lower Bulatgama.

.. .. .	5,687	6,495	+	14.2
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Census Office,
Colombo, May 9, 1891.

LIONEL LEE,
Superintendent of Census.

The following statement shows what was the increase in numbers of the races of the population in 1881 as compared with 1871, and in 1891 as compared with 1881 :—

				1871 and 1881.			
				Males.	Females.	Persons.	Percent- age of Increase.
Total Population	..	..	..	189,424	169,984	359,358	14·9
Europeans	..	..	..	998	584	1,577	48·5
Burghers	..	..	..	1,191	1,360	2,551	16·6
Sinhalese	..	..	..	94,029	88,126	182,155	10·9
Tamils	..	..	..	79,882	69,602	149,184	27·8
Moors	..	..	..	11,926	8,887	20,813	12·7
Others and Malays	..	..	..	1,344	1,286	2,630	19·1
Veddahs	..	..	..	109	89	198	9·8
				1881 and 1891.			
Total Population	..	..	..	128,828	124,228	248,051	9·
Europeans	..	..	..	—200	42	—158	—8·2
Burghers	..	..	..	1,607	1,738	3,315	18·7
Sinhalese	..	..	..	100,709	98,835	194,544	10·5
Tamils	..	..	..	15,625	20,980	36,605	5·3
Moors	..	..	..	5,866	7,258	12,624	6·8
Malays	..	..	..	640	598	1,238	18·9
Veddahs	..	..	..	—525	—474	—999	—44·8
Others	..	..	..	601	251	852	11·4

APPENDIX X.

(Circulars published in England.)

TAXATION IN CEYLON. (I.)

MEDDLING AND MUDDLING OF THE SECRETARY OF STATE.

Lord Knutsford, as Secretary of State for the Colonies, acting in opposition to the opinion of five ex-Administrators of Ceylon affairs, and retaining a 10 per cent. Customs Duty on rice affecting the poorer natives, while abolishing the Excise Rent of the land-owning rice cultivators, and increasing the most obnoxious of all taxes—that on Salt.

A ROYAL COMMISSION OF INQUIRY CALLED FOR.

(1) LORD KNUTSFORD, Her Majesty's Principal Secretary of State for the Colonies, has recently decided that the rent, or tax, hitherto collected on the rice fields of Ceylon, popularly known as the "paddy tax," is to be abolished from 1st January next; while it is announced that the Customs duty on rice imported from India, the staple food of the people in the towns, of the Tamil coolies on the plantations, and of some of the very poorest, because landless, people in the villages, is to remain intact.

(2) Nearly the whole of the net amount of the paddy rent received of late years in Ceylon has been spent in restoring Irrigation Works and in promoting Irrigation generally for the benefit of the poorest and most backward native districts. In round numbers the two levies on rice may be said to have yielded gross revenue as follows:—

Customs Duty, rising to	...	...	Rupees 2,200,000
Paddy Rent	„	„	„ 1,000,000

With the paddy rent abolished, the import duty proposed to be retained will of course be paid chiefly by the people who possess no land of their own, and yet out of the proceeds of this tax, Lord Knutsford proposes henceforward to take votes for Irrigation Works for the benefit of rice cultivating natives. A greater anomaly, or a more unjust proceeding in respect of the poorer natives in the towns and villages, was never heard of.

(3) The writer is among those who (with five past Governors of the Colony, nearly all the members of the Civil Service, and many old residents both native and European) have felt that the proper time would not arrive for superseding these rice taxes, by more direct scientific levies, until popular education and facilities in transport by roads and railways had been more extended in the Island, and a good deal more public money had been spent on Irrigation Works.

(4) On the other hand, the writer (as well as the authorities named) has most consistently and strongly urged for many years, that the one Rice tax would be entirely indefensible without the other, and that both equity and policy demand they should stand or fall together.

(5) If, therefore, the abolition of the paddy tax is to be regarded as final, he would, as a thirty years' resident in the Island, urge most earnestly on all concerned, the prudence and justice of simultaneously abolishing the corresponding Customs duty on rice.

(6) A very brief review of the history of rice taxation in Ceylon will make plain how contrary to justice and policy will be the continuance of the Customs duty after the paddy tax has been abolished.

(7) The paddy rent, or tax on rice fields, was inherited by the British Government from their predecessors the Dutch, Portuguese, and native Sinhalese authorities. To balance it, a Customs duty equivalent in incidence was placed on imported rice. It is this Customs duty that has, up to the time of Lord Knutsford, been considered the more obnoxious from the British statesman's point of view, as specially opposed to a Free Trade Policy. Sir Emerson Tennent wished to abolish it 45 years ago, and at intervals since there has been agitation towards giving it up. But the policy now announced is :—while abolishing the inland rent or tax of immemorial standing, to maintain intact the Customs levy.

(8) This will not only be a "protection" tax in favour chiefly of comparatively well-to-do landowners, but a levy on the native Sinhalese, Tamils, and other races, who, having no lands of their own, are among the very poorest, and are solely dependent for their staple food on imported rice. The result will be, at the most favourable calculation, that 1,500,000 of natives will be eating untaxed rice, while 1,500,000 (including some of the poorest) will be paying 10 per cent. *ad valorem* on their staple food, imported rice from India.*

(9) It is no wonder, therefore, that nearly the whole of the Civil Service, and no less than five past Governors of Ceylon, should be opposed to such a policy. The following, among other Administrators, have considered it would be unjust, as well as impolitic, to maintain the Customs duty after the abolition of the Excise rent or tax :—Sir Hercules Robinson, who was Governor of Ceylon from 1865 to 1871; the late Sir William Gregory, who administered from 1872 to 1877; Sir Arthur Birch, who was Lieut.-Governor and Colonial Secretary for five years; the late Sir James Longden, who was Governor from 1877 to 1883; and Sir Arthur Hamilton Gordon, who administered the Colony from 1883 to 1890; and their opinions, in opposition to Lord Knutsford, have been shared, with only two or three exceptions, by all the revenue officials of Ceylon. All have been clear that the rice taxes should stand or fall together, and this is still the opinion of the surviving ex-administrators of Ceylon :—Sir Hercules Robinson, Sir Arthur Birch, and Sir Arthur Gordon.

(10) The late Sir William Gregory—whose recent death is regarded as a public calamity by the Ceylonese and all friends of the Colony—felt so strongly on the matter, that he personally declared to the writer, in December and January last, that the Ceylon Customs duty on rice without the excise on paddy would be absolutely indefensible, that such

* This rice imported from India pays in rent and export duty to the Indian Government as much as 20 to 30 per cent., while it will now be further taxed 10 per cent. to the Colombo Customs before it comes into competition with Ceylon-grown rice which is to be freed of the immemorial rent.

a one-sided unjust levy would not stand half-an-hour's honest discussion in the House of Commons; and he added in a letter: "I know if I were Under-Secretary of State, I should then (after the abolition of the paddy rent) refuse to defend the Customs duty on rice in the House of Commons."

(11) In the chief towns and villages, there are to be found by far the heaviest taxed, and yet some of the poorest people in Ceylon; for, without lands of their own, these have Municipal, or Local Board, levies to pay in addition to the general taxes of the Central Government. They will have to continue to pay 10 per cent. *ad valorem* on their staple food, while their better-off, land-owning countrymen in the rice districts, a few miles distant, are freed of one of their very few contributions to the revenue. Most of the well-to-do natives in Ceylon are land-owners in the rice districts of the Western, Southern, Central, and Eastern Provinces—the last exporting surplus rice crops to sell in the Northern Province—and these native capitalists (a meeting of whom has just been held in Colombo to thank Lord Knutsford for the paddy rent abolition so advantageous to their pockets *) will profit rather than the mass of their dependants, the field workers, by the policy of the Secretary of State. Already this fact has been brought under the notice of the Government, for in a petition laid before the Legislative Council of Ceylon in December last, some of the poorest inhabitants of villages in the Southern Province, in complaining of a local tax affecting them, state, that although some people talk much against the paddy rent, it only affects the comparatively well-to-do among the natives. It is worthy of note that the mass of the rice cultivators never complained of their rent, and that the only feeling raised against it was by outsiders among a certain number of those near the towns.

(12) But still worse, as if to add to the burdens of the poorest class of natives, the present Ceylon Government, under Lord Knutsford's direction, has, according to mail news received this week, proceeded to make up part of the loss of revenue caused by the paddy tax abolition by increasing the SALT TAX—the most obnoxious of all taxes affecting the mass of the people in India and Ceylon, *the very first tax*, in the opinion of Sir Arthur Gordon (our late Governor), *which ought to be abolished*, as well as the Customs duty on kerosene oil, which is used for lighting purposes by the poorest of the people in towns and villages. This action has been strongly opposed by several members of the Legislature, and is likely to be made the subject of protest to the Colonial Office by the Colombo Chamber of Commerce. Those who have seen the vile black stuff which is retailed to the people as salt in some parts of Ceylon, and have known good white salt wilfully destroyed in places where there are no regular salt works, lest the people of the neighbourhood should use it, cannot but deeply regret Lord Knutsford's backward policy in this respect. In the House of Commons (June 20th) it has just been announced that the Indian Government intend reducing the salt tax in India, just as the same levy in Ceylon is to be increased.

(13) It is evident to all with prolonged experience in our Administrative affairs, that the paddy rent or tax was as the keystone of the arch of finance in Ceylon, and that with the driving out of that key by Lord Knutsford, nothing less than an entire alteration in the system of

* "The native upper classes and their wealthy friends have reason to be grateful to Lord Knutsford and Governor Sir Arthur Havelock, for it is they who will benefit most largely by the abolition of the Paddy tax, whilst the poor goiya, who cultivates the land under them, will be but little advantaged by it."—*Ceylon Times*, May 30th 1892.

taxation in the Island will suffice. Colombo is now the great steamer calling port of the East, and rivals Singapore and the Indian Presidency capitals as a centre of trade; but unlike Singapore (which is a free port) and Bombay, Madras, and Calcutta, where Customs duties have been greatly restricted, Colombo will continue to have, through Lord Knutsford's policy, a heavy 10 per cent. import duty on the staple food of the Ceylonese (while losing the counterbalancing Excise rate), and will continue to levy the duties on cotton goods and other English manufactures while increasing that on kerosene oil.

(14) Surely neither Mr. Gladstone—should he come into power—nor Mr. Chamberlain, should he be once more the all-powerful adviser of a Unionist Government, can approve of a financial policy so backward and unequal, in fact so partial and unjust.

(15) Every consideration of prudence, as well as good policy, should now indicate the present year as the right time for the issue of a Royal Commission—composed, say, equally of British, Anglo-Indian, and Ceylon finance authorities—to examine the whole question of taxation in Ceylon, with a view to revision, and to place the same on a sound and equitable basis; rather than that Lord Knutsford should endeavour to postpone “the inevitable” by a miserable attempt to increase obnoxious taxes—such as those on salt and kerosene oil in lieu of the paddy rent—while leaving the Customs duty on rice as one of the most one-sided and unjust levies in the whole history of Colonial Administration.

(16) Many of the very gentlemen who have most influenced Lord Knutsford in abolishing the paddy tax, fully acknowledge that the Customs duty on rice must fall ere long: indeed, an article in the *Manchester Guardian*, of January 27th last says:—“When the paddy tax is got out of the way, the removal of the Import duty must speedily follow”; and several probable members of the next Parliament are pledged to raise the question at an early date, and press for abolition.

(17) But, apart from the *injustice* of maintaining the one rice tax for a single day after the other is taken away, it will be in reality a species of refined cruelty towards the Ceylonese rice-cultivators—ignorant as many of them are, and most strongly opposed to changes in revenue levies—to abolish the rent or paddy tax from January 1st, 1893, and then, when the Customs tax is removed, say a year or two afterwards, to come and tell them to be prepared for a general land tax, such as their neighbours on the continent of India pay. Far better, if there is to be a reform in the system of Ceylon taxation, which hitherto has been dependent mainly on the balancing of Excise and Custom duties, to introduce the new system at once, after a broad, equitable, permanent fashion. Even the ignorant native cultivators can understand one tax taking the place of another; but after accustoming them to no Government rent at all, to begin a new land tax after a longer or shorter interval will be the occasion of many loud and grievous complaints against what they will conceive to be a new burden altogether. Any delay will make the introduction of a proper system far more troublesome and difficult.

(18) I urge therefore, in the name of common sense and prudence as well as of equity, that whoever may, as Secretary of State for the Colonies, preside over the destinies of Ceylon after the General Election, whether a Unionist or Home Ruler, he should make it his business to delay giving effect to the several Ordinances abolishing the paddy rent, increasing the salt tax, and increasing the Customs duty on kerosene oil in Ceylon, until, by a Royal Commission of Inquiry, the whole question of the future taxation of the Colony has been taken into

consideration. For I think I may aver that I am fortified by the opinion of five of the most experienced of Colonial Administrators—three of whom, Sir Hercules Robinson, Sir Arthur Gordon, and Sir Arthur Birch, are still available to bear testimony—in saying that Lord Knutsford is likely to leave the taxation and finance of the leading Crown Colony entrusted to his care in the most unsatisfactory and unsafe condition it has been in since the time—forty-three years ago—when Mr. Gladstone and Mr. Disraeli stood together in carrying an Inquiry into Ceylon Affairs, against Lord John Russell's Government of that day.

J. FERGUSON,

Of the "Ceylon Observer" and "Tropical Agriculturist."

LONDON, June 1892.

Postscript, June 30th.—Since writing the above, another mail has come in from Ceylon bringing intelligence of the Report made by Mr. Edward J. Young—a very experienced proprietary Ceylon planter—on his Labour Mission to Southern India. Mr. Young offers reasons why the immigrant Coolies in Ceylon should have cheaper rice, and he evidently considers this to be an important means towards rendering the Ceylon planting districts more attractive to the labourers from Southern India whose services are now eagerly sought after in Burmah and the Straits Settlements. Mr. Young writes as follows:—"The present Ceylon wages are ample for the Coolies' services, and compare favourably with what he can earn at home or elsewhere; at the same time, I think more could and should be done for him by the supply of cheaper and better rations. Now that the paddy tax has gone, the sister food tax levied on rice at the Customs *must necessarily follow suit*; this would considerably cheapen rice, and it should then be a rule to issue it at R3 per bushel." This forms a new and important argument for the early abolition of the Ceylon Customs duty on rice, the staple food of the Coolies, and imported from India; for no one will deny that on an increasing and abundant supply of labourers from Southern India largely depends the continued success of tea cultivation, on which again the financial and general prosperity of Ceylon at present mainly rests. Free, cheap rice in Colombo and the planting districts would certainly be one of the best means of attracting more coolies.—J. F.

TAXATION IN CEYLON. (II.)

From the "Times of Ceylon," with notes by Editor "Ceylon Observer."

[The following circular or leaflet, drawn up by Messrs. T. N. Christie and Seneviratne, has been circulated very largely in London amongst those interested in Ceylon, copies having been sent to the Cobden Club and other similar institutions. It is a counterblast to Mr. John Ferguson's circular on the same subject, and bears the impress of Mr. Christie's hand.]

"As a leaflet on the above subject recently circulated by Mr. John Ferguson, Editor of the *Ceylon Observer*, contains much that is inaccurate and misleading, the undersigned, who happen to be in England, desire to offer some explanation of Mr. Ferguson's attitude and of the rice taxes,

"There was no tax in the whole British Empire at all similar to the recently abolished paddy tax of Ceylon; it was of itself unfair, and its collection led to the eviction, in a state of destitution, of many thousands of the native peasantry from their homes and small ancestral holdings. To these evictions, and the consequent distress, the attention of Parliament was directed two years ago."

[The Indian land tax differs only in the fact that ALL products of the land are taxed and not merely one, the greatest and most fruitful, Government having voluntarily abandoned its indefeasible right in the case of all others. Not only distress but famine and evictions are frequent in India; but no attempt has been made to abolish the land tax, which is rated according to the value of produce.—ED. C. O.]

"Mr. Ferguson strongly opposed the abolition of this native tax, and predicted that its abolition (which was the policy of a rival newspaper) would lead to the abolition of the import duty on grain, that the abolition of the import duty must lead to a general land tax, and that the imposition of a general land tax would have grievous effects. He now apparently would, in order to prove himself to be a true prophet, try to bring about the very evils he was at one time so solicitous of avoiding."

[The remark about the policy of a rival newspaper is an offensive impertinence. The *Observer* opposed abolition for a quarter of a century before Mr. George Wall took to editing a paper; and the *Observer* editors ever held that the moment the internal tax was removed the import duty, becoming protective against our Indian fellow-subjects, was indefensible and therefore doomed. It is now our duty to denounce and secure the removal of a protective and partial tax.—ED. C. O.]

"The import duty is not, as stated by Mr. Ferguson, *ad valorem*, but is a fixed sum of 29 cents (4½d.) per bushel, equal to about ⅙th of a penny per lb. weight.

"It does not press on the poorest as the paddy tax did, for the imported rice is chiefly consumed by the Tamil population from Southern India, and a very large share of the duty is paid by the prosperous European tea-growing industry. The town residents, who also consume imported rice, are generally well-to-do people, and Mr. Ferguson is the first to find out that the tax possesses any hardship beyond that common to all taxes. It is not in practice a protective tax, for the Indian-grown and Ceylon-grown rices never come into market contact."

[All of which statements we traverse, especially the monstrous assertions that the urban population are all well-to-do, and that imported and home-grown rice do not come into competition. The "prosperous" tea planters have to pay not only old taxes but new ones imposed to replace the paddy tax.—ED. C. O.]

"Mr. Ferguson will find it difficult to reconcile his present position, that the import duty is in effect protective, with his repeated statements, made when he hoped to maintain the recently abolished tax, that the abolition of the paddy tax would not encourage the native industry, but would, if anything, lead to a diminution of the rice cultivation of Ceylon. Mr. Ferguson's circular would invite attention to the present position of the import duty on grain in Ceylon, as if that position were singular to Ceylon, or that the recent abolition of the paddy tax had effected some unheard-of and intolerable economic change. As a matter of fact, the abolition of this tax has merely removed Ceylon from what was an

absolutely singular position, and placed it on a par with the other Colonies of the Empire.

"Not only have the self-governing Colonies import duties on grain, but the Crown Colonies—such as Natal, Demerara, Jamaica, etc.—have import duties at much higher rates than Ceylon."

[Import duties on grain are in the self-governed colonies avowedly protective; and in Jamaica, Malta and others are defensible from necessity and from the fact that grain is not locally grown. Ceylon is the only Crown Colony in the British Empire which levies what is now a distinctly protective grain tax; and we may rely on it, she will not be allowed long to occupy this position: *vide* the expression of hope by the Cobden Club. We trust Messrs. Christie and Seneviratne will enjoy paying the mass of new taxation which the inevitable abolition of the import duty will render necessary.—ED. C. O.]

"Those who sign the paper have no affection for any food tax, and they will welcome the day when, without raising greater evils, the Ceylon import duty on grain can be done away with; but they recognise the danger of too suddenly applying Western principles to an Eastern country, where direct taxation is extremely distasteful to the people, and in its collection invariably brings discontent and distress.

"The members of the Ceylon Legislative Council, who are best able to weigh comparative evils of the import duty and of the necessary alternative taxes, may be trusted to watch for any opportunity of effecting a beneficial change of system, and if necessary of drawing the attention of members of the House of Commons to it.

"A. SENEVIRATNE,

Member of the Ceylon Legislative Council representing the Sinhalese.

"THOS. NORTH CHRISTIE,

Lately Member of the Ceylon Legislative Council representing the Planting Community.

"LONDON, July 30th, 1892."

["The danger of too suddenly applying Western principles" is exceedingly rich from men who have helped to get an immemorial Oriental tax abolished by the rash application of Western principles. Some of the results are already apparent in taxing Ordinances. But we have not yet seen all.—ED. C. O.]

TAXATION IN CEYLON. (III.)

A few words of correction and explanation are necessary, by way of rejoinder, to a leaflet recently issued by Messrs. A. Seneviratne & T. N. Christie on the above subject.

Alluding to their connection with the Ceylon Legislative Council, these gentlemen indicate that members of that Council are best able to advise as to a change of system of taxation; but they ignore the fact that two members of the Legislative Council—one of them Mr. Christie's successor—have already been opposing the new taxes arising out of the paddy rent abolition, and that a formal protest against the same has been sent home to the Secretary of State for the Colonies.

Messrs. Seneviratne & Christie further forget that the new burden on salt—the tax above all others in Ceylon calling for reduction or remis-

sion—and the increased import duty upon kerosene oil, have created very general dissatisfaction.

The Chamber of Commerce and the Planters' Association have condemned these new burdens and other recent financial arrangements, such as the vote for Irrigation Works out of Customs Revenue.

On the other hand, Messrs. Seneviratne & Christie declare that the import duty on rice does not press on the poorest natives as the paddy tax did; whereas in a memorial to the Legislative Council from village natives who are consumers of imported rice, the paddy cultivators are described as comparatively well-to-do; and it is notorious that in the Western, Southern, and Eastern provinces, nearly all the Sinhalese and Tamil paddy land-owners and farmers are exceptionally well-off.

The import duty of 4½d. per bushel of rice, the value of which is about 3s. 6d., may be equal to "1½th of a penny per lb. weight," but it is also 10 per cent. *ad valorem*, and must be contrasted with the average earnings of a native labourer, which cannot be put at more than 2s. 6d. to 3s. per week.

A large proportion of the natives in the villages and towns, consumers of the imported and taxed rice, are among the very poorest of the Ceylonese, and many of them are taxed out of all proportion to the class just relieved.

Messrs. Seneviratne & Christie state that "the Indian-grown and the Ceylon-grown rices never come into market contact." This is explicitly contradicted by the Ceylon Customs and Provincial Reports, which show (1) that a large quantity of surplus rice grown in the Batticaloa district is exported to compete with Indian-grown rice in the Jaffna district; (2) that rice grown in the Southern province has been sold in bazaars alongside of Indian rice as far north as Kegala; and (3) that the North-Central Province has begun to send a considerable quantity of rice to sell in other districts. All such island-grown rice it is proposed now to free of rent or tax, while maintaining a 10 per cent. import duty on imported rice, so establishing *Protection* in its worst form, and taxing the people of the towns and villages for the benefit of the paddy cultivators and land-owners, their fellow-countrymen.

The anomalies and injustice involved in such legislation—paddy tax abolition, increase of burdens on salt and kerosene oil, and irrigation votes for the class just freed from rents—have provoked much criticism from the public and press of Ceylon; and it is admitted on all sides (in the island, as by the Cobden Club and by officials in England) that the Customs duty on imported rice cannot stand alone, but must ere long be abolished.

Seeing then that a further change will have to be faced—and this even Messrs. Seneviratne & Christie seem to allow—a little reflection will show that the present affords a far better opportunity for completing the revision of Ceylon taxation than is likely to recur; (1) because this is a time of comparative prosperity in the island owing to causes which may prove temporary; (2) because the natives themselves are, at present, prepared for a change of system; and (3) because experienced Civil Servants, who have not lost touch with the people, are still available to introduce an equitable and permanent system.

It is under these circumstances, therefore, that a Royal Commission of Inquiry is desirable, in order to place the Ceylon system of taxation once for all on a safe, equitable, and, if possible, permanent footing.

J. FERGUSON.

Of the "Ceylon Observer" and "Tropical Agriculturist."

EDINBURGH, August 24th, 1892.

APPENDIX XI.

ESTIMATE OF GOVERNOR SIR HERCULES ROBINSON IN CEYLON.

(FROM MAJOR SKINNER'S "FIFTY YEARS IN CEYLON.")

In March 1865 Sir Hercules Robinson arrived as Governor, and the month after his landing gave earnest of the interest he intended taking in the welfare of the island by starting on a tour through Hapbootella and Saffragam. The Colony was much to be congratulated on the



SIR HERCULES ROBINSON.

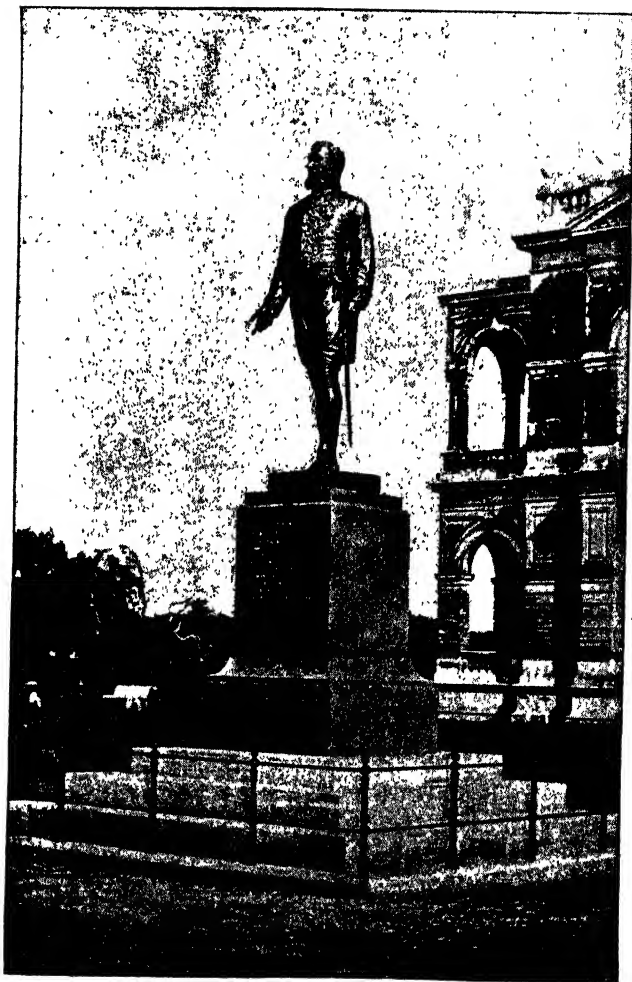
advent of such a Governor, the most painstaking, hardworking man I have ever met in his position. An extraordinary love of justice was his most peculiar characteristic, and I have seen frequent instances of this when travelling with him; he would not decide any claim on a superficial view of the case, but would insist upon receiving the most minute details before giving an opinion.

He astonished me on one occasion, when, on a very remote journey, he called me in to his temporary office, and said, "At last I have got to the bottom of that case of yours *in re* Modelair Fonckea."

This was a man who had been in my department for upwards of thirty years, and was most efficient and economical. In a revision of the establishment of my department, I had recommended this faithful old servant for a higher class of pay; but the Colonial Secretary refused me on the plea that eight or nine years before he had given false evidence in a court of law prejudicial to the interests of the Government. I admitted that at one time I had entertained a similar impression of the man's conduct, but that circumstances had occurred which had completely exonerated him; and I stated that, had not this been the case, it would have been my duty to have represented his conduct and to have recommended Government to dismiss him, and that the Government itself, if convinced of his having played it false, would not have been justified in keeping him in its service. The fact of the Government retaining his services for eight or nine years subsequently showed that his former supposed delinquencies were condoned. The subject had been laid before the Government three or four months previously; but the papers had been repeatedly referred backwards and forwards to the Supreme Court, to the Queen's advocate, and to my office. At last, while in a temporary resting-place in a remote out-of-the-way jungle, Sir Hercules investigated a mass of correspondence and judgments in Court,

showing that Sir Henry Ward, the judge, and the Queen's advocate had all exonerated this man; and His Excellency had the satisfaction of unravelling Modelair Fonceka's case, and of giving him the increase of pay which he so thoroughly deserved, and for which he had been recommended.

In travelling with Sir Hercules, he would often discuss subjects of the kind with me, and never would he allow the humblest person to rest under a sense of injustice; he would require, to be satisfied, that every real grievance should be thoroughly investigated. This is a beautiful trait in the character of a public man; but it requires a very peculiar temperament to carry it to the extent to which Sir Hercules Robinson did.



THE RIGHT HONOURABLE SIR WILLIAM H. GREGORY, K.C.M.G.,
GOVERNOR OF CEYLON,

Erected by the Inhabitants of the Island in front of the Colombo Museum, in Commemoration of the many Benefits conferred by him upon the Colony during his Administration of the Government from 1872 to 1877.

APPENDIX XII.

THE LATE SIR WILLIAM GREGORY AND THE COLOMBO MUSEUM.

REFERENCE TO ENGRAVING.

THE inscription on the statue to Governor Sir William Gregory tells its own story to some extent, but it may be added that a sum of about R25,000 was subscribed by all classes—chiefly by Ceylonese, and especially the Sinhalese section—for the erection of the statue. It was executed by F. Boehm, A.R.A. It is erected in the Cinnamon Gardens, in front of the Colombo Museum—the most interesting and most generally useful, as well as handsomest, public building erected in Ceylon during British times. The conception, arrangements, and carrying out of this museum were entirely due to Governor Gregory. He had for his architect Mr. J. G. Smither, F.R.I.B.A. The structure, laying out of grounds, and surrounding wall cost about £12,000. The museum is occupied entirely with Ceylon exhibits, and presents a very adequate display in all departments, and especially interesting archæological exhibits referring to the early days of the Kandyan kingdom. An Oriental library occupies one part of the building, and the Ceylon branch of the Royal Asiatic Society holds its meetings in an adjoining room. The natives of all classes and races visit the museum in great numbers, and it is a centre of attraction to visitors—passengers landing at Colombo—from all quarters.

THE COLOMBO MUSEUM.

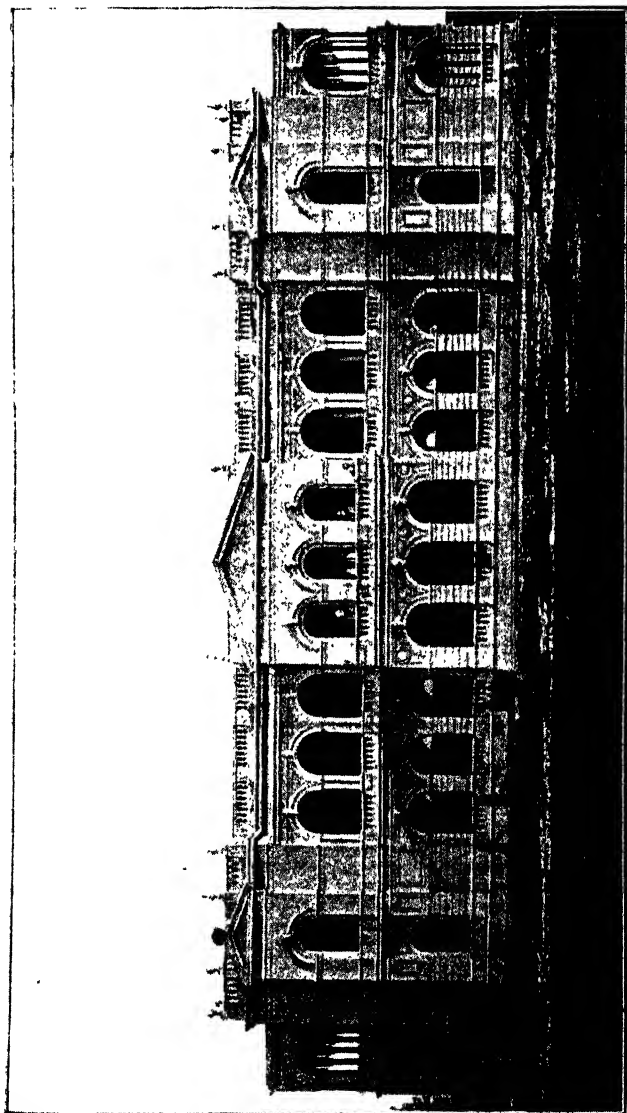
(By a Ceylon Writer in 1882.)

“If want of interest in local exhibitions was not so commonly observable amongst the residents of almost all the principal towns and cities of the civilised world, it might, perhaps, be considered remarkable that so few of the European residents of Colombo take any interest in the beautiful museum which stands so prominently amongst the buildings in the Cinnamon Gardens. It is merely another phase of the principle involved in the assertion that a prophet is not without honour, save in his own country and his own father's house. Our museum is by far the most beautiful building in Colombo: it is pleasantly situated and surrounded by prettily cultivated grounds; it is, moreover, replete with objects of local interest, and entrance is free to all. And yet, with all these attractions, there is scarcely one in a hundred of us who has done himself the pleasure of paying a visit to the building, or, if he has, it was, in all probability, several years ago, or when the collection of specimens was of such a meagre and rudimentary nature as to scarcely merit the name of collection at all. In those days, possibly, visitors

may have been justified in making use of such expressions as 'Really, there is nothing worth seeing or worth the trouble of a visit'; but at the present day the visitor would indeed be hard to please who could not find many objects in which he takes an interest, or which are calculated to attract his attention. In spite of many difficulties, the lukewarmness of the authorities, the inefficiency, if not worse, of the assistants, the active opposition of the few, and the discouraging callousness of the many, and in spite of the disappointment which must necessarily arise from want of intelligent interest in the work by the greater number of the European community, the curator, with the aid of great industry and an affectionate interest in his work, has succeeded in getting together a very goodly show wherewith to minister to the amusement and instruction of those who make the museum a pleasurable resort.

"The collection—entirely of an insular character—already comprises such a number of interesting specimens, that the scanty half-hour of an afternoon, which is generally all that most residents can afford for the purpose before the doors are closed at six p.m., is all too short for even a casual glance at one-half of them, much less a careful examination; and we would advise any one who really wishes to see the museum thoroughly, and acquire a knowledge of what it contains, to take it in instalments at their leisure, as opportunity offers. Inspection of the contents of the lower room might well occupy the whole of the first visit, whilst there need be no waste of time if the gallery is to be got through in an hour and a half. In writing this we must not be understood to be addressing the passengers from the steamers in the harbour who want to see all Colombo in the afternoon, travel to Kandy during the night, drive round the town before the seven o'clock train leaves, and be on board ship again by noon, having learnt all about Ceylon, and a great deal more besides, in less than twenty-four hours; and yet we are assured that out of the 9062 Europeans who during the past year have visited the museum, the greater number are visitors from the shipping. There can be but little doubt that the exhibition has been subjected to one very serious drawback during past years, and that is the constant state of change in detail and arrangement which have occupied the officials so incessantly.

"Complaints were rife of empty cases and lack of specimens, and the justness of such complaints could not well be gainsaid; but it was an unfortunate state of affairs which has absolutely necessitated, as experience proved, the utility of change of position, or as the growth of the collection called for more accommodation. The extraordinary dilatoriness of the Public Works Department has, without doubt, done much to injure the good fame of the museum, and even now there are a very great number of specimens which are lying idle in the store-rooms for want of cases in which they could be exhibited; and with the transport vote cut down as it is to half the usual amount, and altogether inadequate to the necessities of the case, there seems to be little hope of progress in the immediate future. This transport vote, we may explain, provides for all the cost of collection by the curator and his assistants, taxidermists and peons, cart and coolie hire, tolls and canoes and travelling expenses, purchase of specimens, etc., etc., and, when it is reduced as it has been to such an insignificant amount, the resources of the collector's establishment are entirely crippled, and progress most effectually stayed. There have been many critics from time to time who have not been backward in attributing blame to the curator, when, had they only been aware of the true state of the case, they would, without



THE CEYLON MUSEUM.

From a Photograph by Sergeant Morrison, Army Hospital Corps.

doubt, have been astonished that so much has been done with so little in the way of support. Lately, however, very considerable changes have taken place in the arrangement of the collection, many of them most advantageous, whilst some, we think, will have again to be altered. The entrance hall, once crowded with gigantic fishes, requires something to do away with the idea of emptiness which cannot fail to strike a visitor, whilst the two bare benches which are placed in it are by no means æsthetic in appearance. The west room on the ground floor, known as the Ceylon Products' Room, has much that is new, and more is promised. Zoology has been relegated entirely to the upper story, save the new Fish Room, to which we shall further allude presently, and the minerals have been brought downstairs. These have been very cleverly placed in cases against the wall, and make a very interesting show, though necessarily there must in time be many more specimens collected, until eventually they will require a room entirely devoted to mineralogy. Perhaps the most interesting exhibit in this section is the series of fossil deposits showing the formation of the west coast of the island, from Dondra Head on the south, to Karativo on the north-west coast. There are also many specimens of sea shells taken from the forests of the Northern Province, and a piece of fossil coral (if we may be allowed to make use of such an expression) from the summit of Tangala Hill, say, 150 feet above the sea level. This room having now been rendered secure with iron bars, the gold Buddhas and jewellery, which had been placed in safety after the disappearance of a portion of them, as well as the collection of coins, are now exhibited again in central cases. The new arrangement of the coins is especially happy, and this part of the collection looks peculiarly neat and appropriate. The exhibition of Ceylon products is at present insignificant and altogether unworthy of the institution, but this want will happily be very shortly amended on the arrival of the two hundred samples which are to come from the Indian and Colonial Exhibition in London. These will all be shown in goblet-shaped bottles, and will, without doubt, look very well. They will be supplemented, it is hoped, by contributions supplied by the principal producers in the island. Perhaps the most interesting specimen at present on view is a sample of clean coffee, exhibited by the Messrs. G. & M. Worms at the London Exhibition of 1851. This may be regarded as a curious relic rather than an object of any special value. The Exhibition itself is seldom alluded to in the present day, except as the father of all the exhibitions which have been so numerous in all parts of the world of late years, and the memory of the Messrs. Worms is fast fading away, except in the recollections of a few of our older colonists.

"We must not omit to make mention of another innovation in the conduct of the museum, which has its first results in the Ceylon Products' Room. This is the admission of loan collections, which it has at length been decided to accept for exhibition when opportunity offers. The first to avail himself of the permission has been Mr. D. W. DeAbrew Rajapakse, who has sent a tortoise-shell box and Sinhalese gentleman's comb, several ancient native swords, and two Mudaliyar's caps of the Dutch period, say about 1790. It is to be hoped that other disinterested individuals will follow suit, and let the public of Ceylon have a sight of the treasures of many kinds which are at present hidden away in ancient almira's in the recesses of the native *walawas*. Before we pay a visit to the galleries, we must not forget to mention the newly-fitted room at the back of the museum, which has been opened to the public as a Fish Room, in which are shown nearly all the great stuffed fishes which at one time or other have been seen in the hall or the gallery. In fact,

they are all here except the gigantic shark, which still remains in the cast gallery, and of which we shall have more to say by-and-by. • The Fish Room is the first practical illustration of the necessity which is beginning to be felt for more accommodation, and it will not be very long before an additional building on a considerable scale will be urgently called for. In the meantime, visitors wishing to see the Fish Room should ask one of the attendants to show them the way, and they cannot fail to gain some knowledge of the monsters which people the Eastern waters. The smaller fishes and the crustaceans and other marine wonders will be met with upstairs."

APPENDIX XIII.

CEYLON AND ITS TROPICAL AGRICULTURE AND PRESS.

THE gentleman whose portrait we give opposite, is a veteran colonist and journalist*—a public man whose name is “familiar as a household word” in the “first of Crown Colonies,” Ceylon, where he has resided for the long period of nearly 55 years. For 46 years of these, Mr. Ferguson has been connected with the *Ceylon Observer*, as chief proprietor and conductor, so that now in his 77th year he must certainly be the oldest British-born newspaper editor in Asia. Born in the far North Highlands of Scotland, in January 1816, Mr. A. M. Ferguson left for Ceylon, with Governor the Right Hon. J. A. Stewart-Mackenzie of Seaforth, in June 1837, landing at Colombo, after a voyage of over four months round the Cape of Good Hope, on November 7th, 1837. For 26 years Mr. Ferguson laboured in this tropical island without intermission, so that he had never travelled on or seen a railway—the first line to Blackwall was under construction as he left London 55 years ago—until, after being relieved in 1861 by his nephew and future partner and co-editor, Mr. John Ferguson, in 1863 he visited Bombay *en route* for Europe. The first railway in Ceylon, that from Colombo to Kandy, was opened in 1867. Previous to the advent of the Telegraph wire in conjunction with the then *Observer* proprietor and co-editor, Dr. Elliott, Mr. Ferguson, for eight years, from 1850 to 1858, had a successful carrier pigeon service in full operation between Point de Galle, the mail steamer port, and the capital, Colombo, a distance of 72 miles. This distance the pigeons repeatedly traversed in 40 to 45 minutes, at the rate of 96 miles an hour, and carrying enough news to fill two pages of the *Graphic*. In this way the news of the Fall of Sebastopol first reached Colombo, and the Governor, Sir Henry Ward, caused a Royal Salute to be fired on the faith of the “Pigeon Despatch.” In 1881, Mr. A. M. Ferguson was chosen as Commissioner for Ceylon to the Melbourne Exhibition; and, among other acknowledgments of his services on that occasion, he received from Her Majesty, on the recommendation of the Governor of the Colony, the honour of “C.M.G.” Messrs. A. M. and J. Ferguson have written largely about Ceylon, in books as well as in the daily press; and a monthly periodical, the *Tropical Agriculturist*, originated by Mr. John Ferguson in 1881, and dealing with all sub-tropical culture, has a standard value, and is regularly filed at the Royal Botanic Gardens, Kew, in the Agricultural Department at Washington, as well as by Agricultural directors and the planters throughout India and the sub-tropical Colonies not only in the East and West Indies, but for the Straits, South and East Africa, besides the States of Mexico, Central and South America.

* Since the above was written, Mr. Ferguson has passed away. He died at Colombo, December 26th, 1892, after three weeks' illness.

Messrs. Ferguson have done much to advance the cultivation of cinchona, cacao, and, of late years, tea, since coffee failed in Ceylon ; and now that colony is in a fair way to become one of the greatest tea-growing countries in the world, its exports of tea rising in twelve years from less than 100,000 lbs. to 68,000,000 lbs. ; while 1892 is likely to see an export approximating to 80,000,000 lbs. Ceylon tea is used everywhere now, and appreciated in British households, and it is fast becoming a



THE LATE A. M. FERGUSON, ESQ., C.M.G., COLOMBO, CEYLON (THE OLDEST NEWSPAPER EDITOR IN ASIA).

great favourite in Australia, Canada, the United States, and over many parts of the Continent of Europe. The subject of our portrait has taken a great interest in the tea cultivation industry, and his plantation of "Abbotsford," finely situated on the slopes of the central mountain range in Ceylon, is frequently visited by travellers passing through Ceylon. It is a matter of gratification to all interested in this beautiful island that all the work done on plantations has always been by free

labour, and that nothing deleterious is grown or exported, the list rather including tea, coffee, cocoa, cinchona bark, cinnamon, cardamoms, coco-palm nuts, oil, opium, coppara, punac, and fibre products, desiccated coconut for confectionery, citronella oil, ebony, satin, and other fine timbers, etc., etc. A paper, entitled "Ceylon: Its Attractions to Visitors and Settlers," was read by Mr. J. Ferguson before a full meeting of the Royal Colonial Institutes in March, Lord Aberdeen in the Chair; and a fourth edition of his volume "Ceylon Illustrated," by the same gentleman, is about to be published, with a dedication to the Right Hon. Sir Hercules Robinson, G.C.M.G., who, amongst his 36 years' service as Colonist Governor in nine separate dependencies, administered the affairs of Ceylon from 1865 to 1872. What ought to make Ceylon specially interesting to every British household is not only the fact that it supplies the delicious pure teas now so popular, but that (as Mr. Goschen pointed out in the House of Commons) the transfer of the patronage from the impure and too often adulterated China Teas to those grown in our own dependencies, India and Ceylon, is one of the best means of putting a stop gradually to the opium traffic between India, Persia, and China; for it is with the money got for their tea that the Chinese buy the foreign opium. The photograph of Mr. A. M. Ferguson, from which our engraving is taken, was by the Colombo Apothecaries' Company, Ceylon.

"PIGEON POST."

A RECORD FROM CEYLON.

To the Editor of the "Daily Graphic."

SIR,—I am somewhat surprised by a paragraph in the *Daily Graphic* of Friday, in which Mr. Walter Pilling, of Rochdale, correcting Mr. Cocker, of Sunningdale, states that the fastest time on record for England for the "pigeon post" is 1879 yards a minute; because, if this be the case, the record was greatly beaten well-nigh forty years ago, during the "pigeon service" established by the Colombo *Observer*, in the island of Ceylon. The history of this service is well known to Mr. Tegetmeir and other authorities on "homing" pigeons, and it has also been the occasion of careful inquiry from military authorities of different countries; but I question if there are more than a very few in England in the present day who are acquainted with what must be one of the most interesting and successful, because long-continued, services on record, maintained by carrier pigeons in the interests of the Press.

This service was established by the then proprietor and editors (Messrs. Elliott and Ferguson) of the *Ceylon Observer* between the mail steamer port, Point de Galle, and the capital, Colombo, a distance of seventy-two miles, along the palm-covered western coast of the island. It was commenced in 1850, and continued in successful operation without intermission for well-nigh eight years, until in 1858 the telegraph wire was introduced. The main object in view was to secure the prompt transmission to Colombo of specially prepared London despatches landed at Galle from the monthly or fortnightly mail steamers—a matter of immense importance, as you may imagine, in ante-telegraph days, and more especially all through the Crimean War and the first portion of the Indian Mutiny, when the military and civil community of Colombo

were in a state of great anxiety over the fate of many relatives at "the seat of war." In this way the news of the Fall of Sebastopol was brought to Colombo by the *Observer* carrier pigeons, and the then Governor of the colony, Sir Henry Ward, ordered a Royal Salute at once to be fired on the faith of this press intelligence. An illustration appeared in the *Illustrated London News*, of February 2nd, 1856, of the sending of the news by pigeon express in Ceylon, with a brief statement of the facts. The scene round the *Observer* office each time the flag was hoisted, indicating the arrival of a pigeon with despatches, became animated in the extreme. Europeans, including a large sprinkling of military uniforms, and natives of all classes—Sinhalese, Hindus, Mahomedans—traders and merchants, anxious to learn the latest prices of produce in London, all crowded round for the mail news.

But now for the practical experience in working. It is scarcely necessary to refer to the training of the birds, or to the care taken in writing the despatches on specially thin paper—small square sheets which, when folded up to the size of a quill, could readily hang down, connected by soft twine with the pigeon's leg just above the claw, so that when flying the bird draws up the despatch under the shelter of the wing. As much MSS. as would fill a page of the *Daily Graphic* in small type was often received, and sometimes with two or three pigeons arriving close together enough to fill three or four such pages came in. As regards the important point of time and speed, which led me to take up my pen, I have to say that while usually the pigeons took from an hour to an hour and a half to arrive, they have frequently done the seventy-two miles in three-quarters of an hour; while it is stated in a published account of the service that on one occasion it was believed a pigeon came in half an hour after its despatch from Galle. But leaving this out of our calculation as somewhat doubtful, I take the distance of seventy-two miles from Galle to Colombo (under a tropical sun), as traversed in three-quarters of an hour, "repeatedly" by the "*Observer* Pigeon Express" between 1850 and 1858, and I find that the rate of velocity in this case is equal to 2816 yards a minute, or 980 yards more than the Sunningdale pigeons did at their best over the same distance of seventy-two miles, and 937 yards better than Mr. Pilling's pigeons, flying from Swindon, but in this case for 142½ miles.

Yours faithfully,

J. FERGUSON.

Royal Colonial Institute, Northumberland Avenue, W.C., June 7th.

To the Editor of the "Daily Graphic."

SIR,—As you have inserted Mr. John Ferguson's letter regarding the pigeon service which I suggested and the late Dr. Elliott carried out, I hope you will add the accompanying explanation which I felt bound to send to the *Observer*. With all the qualifications made, the rate of speed attained by one of our pigeons on one occasion was very great—equal to the best performance of an American pigeon, which itself transcended anything I have found in the literature of the subject. I may add that the Intelligence Department of the Indian Army asked for and obtained the details of our eight years' successful pigeon service from Galle to Colombo.

The scene in the *Observer* office when a pigeon brought the details of the battle of Inkerman—one of the most terrible "since war first cursed

the world"—was memorable. Besides others who thus heard of the loss of relatives, Captain Cathcart, from India, was present, and thus got the first intimation that among the victims of that desperate conflict was his uncle, General Sir George Cathcart.—Yours faithfully,

A. M. FERGUSON,

Of the "Ceylon Observer."

Abbotsford, Nanu-o-ya, Ceylon.

July 4th, 1892.

The following is the extract from the *Ceylon Observer* :—

"Mr. John Ferguson's letter to the *Daily Graphic* regarding the exceptional performance of one of the carrier pigeons employed in the very successful *Observer* service from Galle to Colombo in the fifties requires a little qualification, inasmuch as his calculations are founded on the supposition that the flight of our pigeons was coincident with the length of the road. Now, remarkably straight as the road generally is, it takes a marked bend to the eastward between Balapittimodara and Galle. This bend was no doubt cut off by the pigeons, flying as they generally do in a straight line. I should think the odd two miles by road may be struck off on this account, and another mile from the fact that the pigeons were let go about a mile from Galle on the road to Colombo, to prevent the birds mistaking the walls and batteries of the southern fort for those of Colombo; for be it remembered that in the fifties Colombo had a fully-walled fortress, Coehorn's great batteries not having then been levelled into the vast moat, which added so much to the landward defences. Deducting three miles from the road distance, as I have indicated, we get sixty-nine miles in three-quarters of an hour, or at the rate of a fraction over eighty-five miles an hour. This seems an astounding rate of speed; but that it is possible and has been equalled elsewhere I know from the records embodied in an elaborate and splendidly illustrated article on the performances of carrier pigeons in the United States, which appeared in the *Century Magazine* about two years ago. It was there stated that a pigeon had flown at the rate of a mile in forty-two seconds, or 85 10-42 miles an hour, almost exactly the same as the greatest speed in the records of our *Observer* experiment. Some of our pigeons specially excelled in power of flight and homing instinct (the birds had generally their mates in the pigeon-house at Colombo), and fine clear weather made a great difference in favour of rapid flight. As the pigeons fly by sight, too, the absence of hills to intercept their view, and the presence of the line of sea skirting the land were all conditions in favour of the birds. The exceptional performance was by one of our best and best-trained pigeons, and in specially fine weather. It does not, of course, follow that the same rate of flight would have been continued had the distance to be covered been hundreds of miles instead of sixty-nine. All qualifications taken into account, however, the rate of speed is marvellous—four times that of the most rapid steamship, and equal to the highest continuous rate of progress as yet attained by steam locomotives. The frequency with which they had traversed the same route was, of course, in favour of Dr. Elliott's pigeons; but it is quite wonderful what these valuable birds can do over distances which they have but rarely traversed before."

It would be of interest now to know whether the English reporters took their distances according to road, or on the map in a straight line, between the different towns.

MINING IN CEYLON.

INTERVIEW WITH MR. JOHN FERGUSON, OF COLOMBO.

From the "Mining Journal," November 25th, 1892.

Although there is, probably, no part of the Queen's dominions about which more has been written, and about which the average intelligent stay-at-home book-reading Briton has read more than Ceylon; yet, on the other hand, the vast resources of the "utmost Indian isle" are but imperfectly understood and appreciated by most except those whose immediate business relations necessarily place them in possession of more than a merely superficial knowledge of the colony. In commercial geography it certainly, and most deservedly, occupies an important position, as it should, in view of its large and yearly increasing exports of such staple commodities as tea, cocoa, coffee, cinchona bark, cinnamon, coconut oil, and plumbago to the United Kingdom and other countries. But as a modern mining country it is not yet recognised, as we reckon mining countries here at home. Yet it has vast treasures of mineral wealth, although, perhaps, these do not cover any great range in the matter of variety. It is one of those colonies whose mineral resources have yet to be exploited in the light of modern mining and financial practice, and the first step towards any such consummation is to let it become more generally known what the character and extent of its mineral deposits are.

With a view to placing our readers in possession of some reliable data on this point, we have taken advantage of the presence in this country on a short visit of Mr. John Ferguson, of Colombo, a gentleman who is regarded by general consent as a leading authority on all that pertains to the social and material concerns of Ceylon. Mr. Ferguson recently read a paper on "Ceylon: Its Attractions to Visitors and Settlers" before the Royal Colonial Institute, necessarily referring *en passant* to the gem digging and plumbago mining interests of the colony. But what we desired to obtain for the benefit of our readers was the most up-to-date and authentic information we could secure. On representing our wishes to Mr. Ferguson, he very courteously consented to being interviewed, and called by appointment at the *Mining Journal* office for that purpose, having also, with much kindness, placed documents in our hands which enabled us to gather other useful information for present or future use.

Mr. John Ferguson, whose portrait we give—and we do not mind saying that it is an excellent likeness—is a Scotsman by birth, which goes at once to prove what an admirable colonising race our friends beyond the Tweed are. And, more than a Scotsman, Mr. Ferguson is also a Highlander, which is a synonym for grit, and pluck, and energy, and staying power. He was born at far-off Tain, in Easter Ross, in December 1842, and was educated at the Royal Academy in that town, where he won the distinction of being gold medallist. He prepared for his press career—for be it said Mr. Ferguson is co-editor of the *Ceylon Observer*, the chief newspaper in the colony—in Inverness and London, and left for Ceylon, which has been his home ever since, in October 1861, to become assistant-editor of the important and well-known journal just mentioned, and at that time a bi-weekly. Two years afterwards he was enabled to allow his uncle, Mr. A. M. Ferguson, C.M.G., the proprietor and editor of the *Ceylon Observer*, to

have his first holiday trip home after twenty-six years' residence in the island. Mr. John Ferguson extended the bi-weekly paper into a tri-weekly, and at a later period it became the daily newspaper which it is at present, while the overland mail edition for Europe, etc., became a weekly instead of a fortnightly publication. Mr. John Ferguson became partner and co-editor with Mr. A. M. Ferguson in 1877.

Tropical agriculture being, necessarily, the subject most largely dealt



MR. JOHN FERGUSON, OF COLOMBO.

with in the columns of the *Ceylon Observer*, Mr. John Ferguson, in 1881, when his uncle and partner was acting as Commissioner from Ceylon to the Melbourne Exhibition, started a monthly periodical entirely devoted to the products grown in the tropics, including coffee, tea, cacao, fruit trees, sugar, rice, cinchona, tobacco, cinnamon, etc., etc., and calling it the *Tropical Agriculturist*. This publication, unique of its kind, is now circulated all over the world, and is, we believe, regularly filed in the Agricultural Department at Washington, by the different West Indian and Colonial, and by some of the Australian, Central and South American

Governments, and in all the Indian Agricultural Departments, besides circulating freely amongst the planters of India, the Straits Settlements, Java, Sumatra, Borneo, West Indies, Queensland, Florida, California—in short, throughout the whole tropical-agricultural world.

Besides being an indefatigable worker in the field of journalism, Mr. John Ferguson has indulged in authorship in other directions. He is the author of a popular illustrated work on *Ceylon*, which has passed through three editions, a fourth being now in the press; and for many years he has been responsible for the compilation of the *Ceylon Handbook and Directory*, which is, perhaps, the most complete volume of agricultural statistics published for any colony. To this *Handbook* Mr. Ferguson specially contributes a "Review of Planting and Tropical Agriculture," including in its main features the sub-tropical world. He has also edited and aided in compiling a series of "Planting Manuals," and other works.

Mr. John Ferguson is Hon. Corresponding Secretary for the Royal Colonial and Imperial Institutes in Ceylon, and in the former capacity read, as already mentioned, a paper on "Ceylon," before a crowded assembly in the Whitehall Rooms in March last, when Lord Aberdeen occupied the chair, and a number of Colonial authorities took part in the proceedings. Mr. Ferguson is also to read a paper on "Tropical Products" before the London Chamber of Commerce about the end of July.

It is interesting to add that Mr. A. M. Ferguson, C.M.G., is the oldest British editor in Asia, having been born in Wester Ross in 1816, arriving in Ceylon in 1837. After being in business, trying planting and Government service, he became co-editor of the *Observer* in 1846 with Dr. Elliott, purchased the paper from him in 1859, and was joined in 1861 by his nephew, who relieved him from office duties in 1879, though he has continued to take an active part in writing for the *Observer*. In 1882, in acknowledgment of his services as Commissioner for the Colony at the Melbourne Exhibition, Mr. A. M. Ferguson was made a C.M.G. He began the series of *Ceylon Handbook and Directory* in 1859, since 1863 continued by his colleague. He published his illustrated *Souvenirs of Ceylon* in 1864, and has since written many papers which have been published in pamphlet form. In colonists of the stamp of Messrs. A. M. and John Ferguson we find those who, by ceaseless energy, abundance of mental resource, tact, and tenacity of purpose, have contributed more than the conquering and destroying sword to make our colonies what they are, and our Empire as a whole the mighty fabric which dominates the world.

BEAUTIFUL CEYLON.

It goes without saying that Mr. John Ferguson is a great admirer of Ceylon. To him that land of "the hyacinth and the ruby," that "pearl-drop on the brow of India," is a sort of materialised fairy vision of tropical beauty. As has been said by a visitor whose words formed the closing sentences of the paper read before the Colonial Institute, "The way there is, in these days, as easy as rolling off a log; it is only the way back that is hard—hard, because as the low, palm-fringed shores sink beneath the horizon, and the Peak of Adam cloaks itself afar in a mantle of majestic mystery, you feel and know that yonder flashing point of light in your wake keeps watch by the gateway of an Eden where you fain would have lingered, and marks the portal of a summer isle where the brain-fagged workman may stand apart from the strain and stress of life, and the lotus-eater may take his fill."

Nor is Mr. Ferguson alone in his eulogy of the glories of Ceylon. Its praises were sung even by ancient Greeks and Romans, and it was the "Serendib" of Arab and Persian geographers. The Portuguese historians of four centuries ago wrote of it as "the island of spices." In later years its almost every aspect has been written upon over and over again, and it has even been seized as a picturesque setting for romantic fiction. Of its natural beauty, all who have visited it speak in rapturous terms. "It is one botanic garden," says Mr. Ferguson, and his statement needs no confirmation. It would seem to be

An Eden of the Eastern wave

alike for the tourist, the health-hunter, the sportsman, the naturalist, the antiquarian, the Orientalist, or the sociologist; in short, as Mr. Ferguson puts it, it is "a paradise . . . for the intelligent traveller" of every sort or condition. The time may come when it will be all this and something more to the British mining engineer and the British mining investor.

THE MINERAL RESOURCES OF CEYLON.

With the multifarious natural resources of Ceylon we cannot, obviously, deal on this occasion, but it will serve a useful purpose to investigate its mineral products and its mining possibilities. To do this we fall back on Mr. Ferguson's encyclopædic knowledge of the island.

"What, Mr. Ferguson," asked our editor, as soon as our visitor was comfortably seated in the editorial sanctum at Finch Lane with his memoranda before him, ready for the imminent extraction process, "broadly speaking, are the mineral resources of Ceylon?"

"The only commercial mineral of importance," replied Mr. Ferguson, "is graphite or plumbago."

"And it is extensively worked, I think?"

"Yes."

"The industry is progressive, is it not?"

"Yes. Of late years there has been considerable development, as you will see from the figures I hand you (given farther on). Geologically speaking, a large portion of the island is composed of ancient sedimentary beds. Our mountain ranges are primary metamorphic rock. The principal rock is gneiss, with beds of laterite and dolomite. There is plenty of iron ore in Ceylon, some of it yielding up to 90 per cent., but there is little or no trace of coal. The only professional mineralogist we have ever had inspecting (Gygax), about 40 years ago, left a report, in which he stated there was plenty of anthracite coal, but since then we have never been able to find it. It is now thought he made a mistake."

"Has anything been done in the way of iron mining?"

"Nothing European. Cheap iron coming from England has long ago cut native iron out completely. The Sinhalese had been accustomed for hundreds of years to work their own iron, and they have shown wonderful skill in making tools and muskets from imitation. Traces of their smelting furnaces are to be found all over the country. Manganese and platinum are found in small quantities, as well as abundant traces of gold in many of our rivers, but too fine to pay as far as we have yet discovered. The Sinhalese must have worked gold in ancient times, from their names for a number of places we know. Of recent years we have had experts who declared that the rocks showed very promising

quartz, but we have never yet made a thoroughly systematic investigation."

"What is your own view. Do you think it would pay to prospect?"

"If I had the money to spare personally I should scarcely be justified in taking the risk. It is a thing only a syndicate could manage."

"Do you attach any importance to Ceylon as a place for prospecting for gold?"

"Seeing the success of the gold mining in certain parts of Southern India, I do think there is encouragement to extend operations, after careful investigation, farther south, and to the Ceylon hill ranges. I think there is room for a powerful syndicate to do the thing thoroughly, with a good chance of getting a paying return. Our gold-yielding quartz has never been properly and fully tested. Referring to other features, nitre is found in caves. Salt forms naturally on the coast and is also manufactured. We have very slight evidences of volcanic action, and only get the outside of earthquake shocks from Java. Ceylon is too far south to be affected by the cyclones from the Bay of Bengal, and too far east for the hurricanes of Mozambique. Gems are abundant in the island."

GEM DIGGING AND PLUMBAGO MINING IN CEYLON.

"You consider the industry and trade in precious stones second in importance to that in plumbago, do you not?"

"Oh yes, certainly."

"How are the present gem-digging enterprises carried on? How are they capitalised? By local or by English capital?"

"Europeans are only just beginning to attempt to work gems; it has hitherto been a purely native industry."

"It is worked, too, in a primitive fashion?"

"Yes, very primitive."

"Now, as to the gems?"

"A few years ago, attention drawn to the gems in Ceylon led to the formation of syndicates to exploit for gems and plumbago, and these sent out men of high repute in the mineralogical, if not in the mining, world, one of whom at least (Mr. Barrington Brown) gave a very favourable report; but the depression in the financial world (the Barings' crisis) prevented the intended action. One company which set to work rather hurriedly was not very successful in gems; but the other sent out a practical engineer, who found that the employment of European machinery would save time and labour in working the plumbago pits. Both companies took up a number of native pits and leased them, and also land supposed to contain plumbago."

"Are there any open works?"

"Plumbago is occasionally found near the surface, but in some cases the native miners have gone down some 300 feet. As a rule, the best mineral is found in depth. There is a great deal of plumbago land in the hands of the Crown still not taken up."

"As to the facilities offered by the Crown, I take it that there is nothing to keep mining back?"

"No; nothing at all. But there is generally keen competition among the Sinhalese for plumbago land."

"What officials control the mining?"

"There is no special mining officer. It is generally under the control of the district revenue officials. Since 1860 the development of the plumbago trade has been enormous; the exports having doubled in ten

years. But the gems have been worked by the natives for 2000 years, and are still worked very much in the same primitive fashion."

"Could they be worked according to modern principles?"

"We feel out there that the application in well-selected spots of machinery, such as is used for diamond mining in South Africa, should lead to a profitable industry for European capitalists."

"Do the gems run into great variety?"

"The valuable ones are limited. Gyax has stated that the Ceylon sapphires are among the finest in the world. The rubies are the most valuable after those of Siam, and are found in the beds of rivers, or in dolomite and clay ironstone *débris*. Cat's-eye, or *Chrysoberyl*, are found sometimes of fine quality, with an olive tint behind the ray. One piece, found eighteen months ago, was valued at about £1500. As many as 20,000 natives (men, women, and children) are chiefly dependent on these gem diggings."

"Is it remunerative to them?"

"There must at least be £20,000 worth of precious stones got every year, on the average, to support these natives. It cannot be less than that. Then there are moonstones, a species of *Adularia*; an inferior diamond; zircon; another stone called Alexandrite, hard and useful, of a green colour by day and red by night. The Oriental topaz, too, is much prized by the natives. It is a yellow variety of sapphire. A variety of spinel, of a fine green colour, is known as the Oriental emerald. A purple variety is the amethyst; a yellow variety, the garnet, is known amongst the Orientals as the hyacinth. A trade had been carried on between China and Ceylon so far back as A.D. 400. The Chinese got precious stones, and gave, in exchange, porcelain and copper. Ceylon was always noted in early times for its gems. Marco Polo, in the 13th century, reported that the grandest ruby in the world was that owned by the Emperor of Ceylon. It was a span long, thick as a man's arm, without a flaw, and of a brilliant colour. Experts now believe this must have been an amethyst. Chinese history reports that in the 14th century an official was sent to purchase an enormous carbuncle, and it was used as a ball for the Emperor's cap. It was shown at night, which got it the name of the Red Palace Illuminator. Some of the most valuable of the stones in the Island are in the Kandy Buddhist Temple. They are held by the priests, and, perhaps, the only time of late years they were fully on view was on the occasion of the visit of the Prince of Wales. It is believed by experts that as fine stones can be dug out as any the natives have yet obtained."

"How deep have the native miners gone?"

"The greater part is mere surface work. But on some parts of the hills they have gone down forty and fifty feet."

"I take it that all an English syndicate would have to do to proceed to work would be to secure a license?"

"There has been a change of law inaugurated with regard to gem digging which has been a great deal complained of as unworkable, but it is almost certain to be modified, and the license on easy terms again introduced. Attempts have often been made by individuals to find the matrix of the gems, the last being by Sir Samuel Baker when on a hurried visit, but with no special results. In Colombo there are quantities of artificial stones, poor gems, which are sold by the native jewellers to visitors and passengers on steamers, but the greater part of the valuable gems are taken to India, though they are never entered in the Customs returns. They are smuggled out of the colony by many ingenious devices. A ready market is found for them at the Courts of the Indian Rajahs."

"Then, as a matter of fact, the returns published do not give a true representation of the quantity of gems in the island?"

"No, the returns are very imperfect. Amongst the Sinhalese jewellers there are silversmiths' and goldsmiths' castes. In the north of the Island—Jaffna—the Tamils do gold filigree work, which is minute and highly finished, like the Maltese, but it is generally worked with tortoise-shell and pearls. The Sinhalese of the low country have got into the Portuguese way of working their jewellery. The lapidaries cut their precious stones after a very primitive fashion, and sometimes rather spoil valuable gems."

"What about mica, Mr. Ferguson?"

"Of late years an industry has been started in exporting mica sheets. Kaolin, or pottery clay, is found in some parts of the island, and it is on record that six hundred years ago the Chinese got pottery clay from Ceylon."

FACTS AND FIGURES ABOUT CEYLON PLUMBAGO.

Before leaving the subject of mining in Ceylon, we find some interesting statements as to the position occupied by plumbago in the commerce of the island in a monograph by Mr. A. M. Ferguson read in 1885, and published in the *Journal* of the Ceylon branch of the Royal Asiatic Society. It is there mentioned that Thunberg, the Scandinavian naturalist, who wrote in 1777, was the first to notice plumbago as a product of Ceylon. In modern times, as our interview with Mr. John Ferguson demonstrates, the plumbago interest, even in its present position, is a considerable one for the island. It has, of course, its drawbacks, as all mining and other enterprises have, but the author of the paper on plumbago which we are now dealing with—probably the most elaborate and complete of the kind ever published on plumbago, and brimful of interesting facts and figures respecting that mineral generally—contends that, "with all its drawbacks, the plumbago enterprise is invaluable to the country, not only for the revenue it yields, but for the generally remunerative employment it has given to many thousands of the population (from 20,000 to 40,000 men, women, and children, probably, including cartmen and carpenters), especially since the period when the collapse of the once great coffee interest led to so much distress in the country."

Analysis of Ceylon vein graphites has given the following results:—

Variety.	Specific Gravity.	Volatile Matter. per cent.	Carbon. per cent.	Ash. per cent.
Columnar ...	2.2671	0.158	99.792	0.050
Foliated ...	2.2664	0.108	99.679	0.213
Columnar ...	2.2546	0.900	98.817	0.283
Foliated ...	2.2484	0.801	99.284	0.415

The following figures represent the exports of plumbago during certain years:—

Year.	Quantity Exported. Cwts.	Value (Nominal). Rs.
1834 ...	2,582	12,054
1850 ...	23,021	38,330
1860 ...	75,660	289,585
1870 ...	85,248	345,622
1880 ...	205,738	2,057,385
1891 ...	400,268	4,002,680

These figures sufficiently indicate the progressive character of the Ceylon plumbago mining industry, even under present conditions. What it might become with the introduction of British capital and modern systems of pumping and mining is sufficiently evident to suggest that British enterprise might do worse than direct its attention to it, as well as to the gem-fields and the quartz reefs in Ceylon.

There is much more that we might add here to what we have already said, but the exigencies of space compel us to desist. We hope, however, to return to the subject of Mining in Ceylon on another occasion; and for the present we desire to acknowledge our indebtedness for an instructive interview and for much valuable information to Mr. John Ferguson, whose zeal and enthusiasm for the industrial welfare of Ceylon may, we hope, be permitted to continue unabated for many years to come.

GEMS AND GEM-DIGGING IN CEYLON.

It is now over thirty-seven years since the late Dr. Gygax wrote the results of his geological and mineralogical researches for Sir J. Emerson Tennent. In describing his examination of the southern slopes of the great Himapahura range of mountains above Boltumbe and Bambarabotuwa, he says:—"I found about the middle of the ascent a stratum of grey granite, containing, with iron pyrites and molybdena, innumerable rubies from one-tenth to a fourth of an inch in diameter, and of a fine rose colour, but split and falling to powder. . . . I carefully examined all the minerals which this stratum contained—felspar, mica, quartz, molybdena and iron pyrites—and found all similar to those I had previously met with, adhering to rough rubies offered for sale at Colombo. *I firmly believe that in such strata the rubies of Ceylon are originally to be found*, and that those met with in the white and blue clay at Balangoda and Rainapura are but secondary deposits." And Sir James adds, probably on Gygax's authority:—"It is highly probable that the finest rubies are to be found in the above-mentioned strata, perfect and unchanged by decomposition, and that they are to be obtained by opening a regular mine in the rock, like the ruby mine of Badakshan in Bactria, described by Sir Alexander Burnes."

I was very intimate with poor Gygax, and frequently accompanied him in his exploring excursions. He constantly urged his reasons for recommending that the search for gems should be undertaken on scientific principles, but in those days we were all so certain that we should make rapid fortunes by coffee-planting that it seemed absurd to think of wasting time in any other speculation.

Although the operations carried on in the search for precious stones are still of the same rude and primitive character as they were at the time Gygax wrote about them, yet their localities have extended very considerably, and of late years they have been put in practice on the sides of the Himapahura range. About two years ago, native diggers flocked in large numbers to Bambarabotuwa, spreading over a considerable extent of ground. Near Kekunagahadola fully a thousand were at one time congregated, and were hard at work digging pits and washing the excavated earth. The pits are generally about twelve feet deep, and the same in diameter; as the rainfall is heavy in this part of the island the work of baling out the water absorbs a large portion of labour.

For obvious reasons the diggers keep the results of their exertions



A GEM-DIGGER'S HUT IN CEYLON.

Sketch given, and Description, by John Dent Young, retired officer of the Public Works Department, Ceylon.

very much to themselves, and no information that can be relied on is to be obtained respecting the value of what they find. Speaking of the same stratum alluded to in the above quotation from Sir J. Emerson Tennent's book, Dr. Gyax adds, that "having often received the minerals of this stratum with the crystals perfect, he had reason to believe that places were known to the natives where such mines might be opened with confidence of success." I cannot agree in this opinion, although I have no doubt that there are many natives in possession of experience that would be very valuable to a stranger who might wish to commence the search for gems on a regular system.

APPENDIX XIV.

TYPES OF RACES AND AMUSING CHARACTERS IN CEYLON.

(BEING SKETCHES AND CARICATURES GIVEN IN THE "SOUVENIRS
OF CEYLON," BY A. M. FERGUSON.)

THE KANDIAN ADIGAR ("the supreme one") represents a dignity next in rank to the Kandian Sovereign. These were the first, second and third Adigars, conjoint Prime Ministers, Commanders in Chief, and Judges of the Appellate Court. After being long extinct, the dignity has been revived of late years. The folds of stiff muslin worn by the Kandian Headmen give them an odd appearance, and led a late facetious Judge of the Kandy District Court to place to their credit the invention of crinoline. At Pavilion *levées* and on other state occasions the Kandian Chiefs still appear in full dress, and their coronet-like caps relieve the effeminate effect of "all this muslin," and show to advantage when compared with the comb-adorned heads of

THE MARITIME SINHALESE MODLIARS.—The figure represents one of these, the highest Native Chiefs in the low country; for the rank of Maha Modliar (Great Modliar) is the very highest in the Maritime Districts. Modliar, or Mudianse, is a military term about equivalent to the rank of Captain of a district, and in the olden days, even in the Dutch times, each Modliar had his guard of Lascareens or native soldiers. Originally there was a Koralle, the highest civil authority, and a Modliar, the highest military power, in each Korle or county. But collisions of authority led to the suppression of the civil rank in the Dutch time, and the concentration of all power, civil and military, in the Modliar—whose sword, worn conspicuously at *levées* and on other full-dress occasions attests the origin of the rank. The effect is not more ludicrous than the sword which forms an essential part of the court-dress of England; though here, in Ceylon, every interpreter of the Supreme Court or of a Government Agent's Cutcherry (office), and of a District Court, with all Secretaries of District Courts who are natives, are *ex officio* Modliars. The Modliars of Korles are the Government Agents' right hands in matters of revenue, title to lands, etc.; and the Government can reward meritorious servants of Government, or natives in private life who distinguish themselves by acts of public spirit, with the much-coveted distinction of Modliar of the Governor's Gate. For instance, Modliar of the Gate de Soyza of Morottoc, received his high rank for opening a road in Hewahette. In former days the different castes had each its headman; but these are now abolished, and officers for the different districts only are appointed, irrespective of caste, the offices being open, indeed, to all competent natives, as is the use of velvet, a fabric which

was once restricted to Maha Modliars by a sumptuary law. This law regulated the most minute particulars of the dress of headmen, and rendered it penal for private individuals to ape their betters in such matters. All such laws have now been swept from our Statute Book. The representative of the Sovereign can still make a belted Modliar, but the meanest in Ceylon may dress like the highest if he chooses. In our "Ceylon Directory" for 1863 we wrote respecting the female comb and European coat of the Sinhalese, in noticing the figures of the bridegroom and bride, that "the singular adoption by the rougher sex of an article elsewhere peculiar to females, is by some traced to the influence of the wife of a Portuguese Governor." [As a cure for the untidiness of long and loose tresses, she made presents of combs, the use of which soon spread.] The full-dress coat which covers the Sinhalese "Comboy" is, undoubtedly, of Portuguese origin. But different in appearance as the men of the broadcloth and comband those of the muslin and the cornered cap are, they are merely representatives of sections of the same Sinhalese race, the Highlander differing in his bearing from the Lowlander, as all Highlanders do, and differing, moreover, in having longer retained his independence of foreign domination.

The figure of a LLAMA ETENA, or Sinhalese lady of rank, is somewhat too European to be characteristic; and the reproduction of a photograph of a Kandy lady does but scant justice to the original. What the Kandian notions of beauty are, may be gathered from the following description supplied to the late Dr. Davy by a Kandian chief:—

"Her hair should be voluminous, like the tail of the peacock, long, reaching to the knees, and terminating in graceful curls; her eyebrows should resemble the rainbow; her eyes the blue sapphire and the petals of the manilla flower. Her nose should be like the bill of the hawk. Her lips should be bright and red, like coral on the young leaf of the iron-tree. Her teeth should be small, regular, and closely set, and like jasmine buds. Her neck should be large and round, resembling the benigodea. Her chest should be capacious; her breasts firm and conical, like the yellow coco-nut; and her waist small, almost small enough to be clasped by the hand. Her hips should be wide; her limbs tapering; the soles of her feet without any hollow; and the surface of her body in general soft, delicate, smooth, and rounded, without the asperities of projecting bones and sinews."

The full-dress costume of a Sinhalese lady is well represented in the figure of the bride; the ordinary female dress is shown on the coffee-picker and ayah, and in the two figures, especially that to the left, in the illustration of Demonolatry.

Whether the Sinhalese were "always here," as some think, or whether they came over with Wijayo five centuries or so before the Christian era, certain it is that they are the people of the country, speaking a language spoken nowhere else, except in the roots which are common to all the Indo-Germanic tongues.

Very different are the cases of the two races represented by other figures. "THE CHETTY," who is kin to the great Tamil family of Southern India, and the so-called "MOORMAN" [see engravings of Trader and Mason], who traces his origin, however remotely, to Arabia, are each a sojourner in the land, and were, in historic times, strangers to it. The Tamils [see engravings of Jaffna Tamil, Tamil Females, and Roman Catholic Tamil and his wife, with that of the Natucotya Chetty], offshoots from the great Scythian race of Southern India, made themselves a footing by war; the "Moors" are said to have sought an asylum from persecution; but both have distinguished themselves in the walks of

(Oriental) enterprise and commerce. Indeed, the word "Chetty" signifies merchant, and much of the native and intermediate trade of Ceylon is carried on by the "Nattucotya Chetties." But these are men from the coast of Coromandel, turban-wearers and bearers of the insignia of heathenism, while the figure with the Portuguese cap and huge jewelled rings distending his ear lobes, is a representative of the "Christian Chetties of Colombo"—a class largely employed as brokers, shroffs, bill collectors, and clerks. More strictly native are the Tamil man and his wife; but these also being Christians (as the emblem worn by the male figure shows), there is a good deal of European modification in the man's dress. An unsophisticated Tamil would content himself with three pieces of cloth: one bound round the loins; one thrown over the shoulders, like the Highlander's plaid; and the third worn on the head. [See engraving of Jaffna Tamil.] The Moormen equally with the Chetties speak Tamil, which would seem to show that, directly, they came to Ceylon from Southern India. The tradition is, that seven wifeless Arabs, fleeing from their enemies, settled and married in Algoottam, and so spread. The Mahommedans of Ceylon are bigoted but not aggressive. They are the Jews of Ceylon, and are found everywhere, as pedlars, lapidaries, jewellers, masons, and shopkeepers. In the Kandian country they have devoted themselves with much success to the pursuits of agriculture.

A PETTAH SHOPKEEPER, such as we have represented in full dress, may often be seen driving as fine a horse and waggon as can be sported on the Galle Fabe—the "air-cating" resort of Colombo society. There is no mistaking our old friend "TAMBY," the Master Mason, in the corner. The dress in this case, including the absurd funnel-shaped calico cap, is most truthful and characteristic. In the Kandian country the Moormen are industrious agriculturists, and in former times much of the inland traffic was conducted by them, by means of *tavelam* or pack bullocks.

"Papa! don't the Moormen marry?" was the question put by a rather sharp child, when he first saw the page of engravings, and his eye rested on the solitary Tamby. The fact is that these Mussulmans have a great repugnance to allowing their women to be seen; and an artist whom we asked to represent a Moor lady, said he could only draw a female figure completely draped, with no part of the body visible save the ring-adorned ankles. For the present, therefore, we cannot gratify the curiosity of those who would wish to see what a Moorwoman looks like; but we trust to add a Ceylon Mussulmanee on a future occasion.

Time was, when with British merchants the word of a Moorman, but especially that of a Chetty, was deemed as good as his bond. There was a species of "socialism" which prevailed amongst the Chetties especially, which gave the European merchant additional security. But with the wild speculation of the cotton crisis and the extension of commerce, things have altered rather for the worse. The native who contracts to deliver cotton or coffee insists on heavy money advances, while he gives a promissory note at a long date for the Manchester goods he buys—a note not invariably honoured.

Akin to the Moormen in religious profession, though widely different in race, are the MALAYS, who have found their way to Ceylon from the Straits of Malacca, mainly as soldiers of the Ceylon Rifle Regiment. Let us hope that the female sweetmeat-seller is anything but a representative of Malay beauty. The Malays have been highly prized for their soldierly qualities, and it becomes now more than ever a matter of anxiety to recruit the Ceylon Rifles, as a wing of the corps is to form

a portion of the garrison of the Straits. There were formerly several Ceylon regiments, one of which was made up of CAFFRES from the Mozambique coast.

The PARSEES—descendants of the ancient Persian race, and still fire worshippers—are mere sojourners in Ceylon, their headquarters being Bombay and Surat, in Western India. The few residents here are, without exception, engaged in commerce. In physique and fairness of skin, they can scarcely be distinguished from Europeans proper.

The "APPOO," or head Sinhalese servant, in full dress of snowy white, in going to market is not likely to neglect the sacred duty of the brotherhood, that of charging a percentage on the purchases made for "master." The Ceylon servants differ from those of India in that the majority of them speak English very well indeed, far better than most Europeans can speak any native language. Their masters, especially young men who may have an old servant, generally shout "boy!" (properly Bhaec, the Hindostanee for brother) when they want attendance, there being no bells hung in the Ceylon houses; but the servants greatly prefer to be called "appoo," which signifies gentleman. The Ceylon servants are not faultless, but there are worse in the world. The Sinhalese seem to have as little aptitude for equestrianism as they show for navigation, and a Sinhalese groom is as rare as a white crow or a perfectly straight coco-nut tree. The "HORSEKEEPERS" employed by Europeans are universally Tamils, from Southern India, and so are the grass-cutters, who are usually the wives or female relatives of the horsekeepers. The grass-cutters forage for natural grasses, which they take from the ground, roots as well as leaves, and, after washing the grass, bring a bundle twice a day to their employers. Of course those who have Guinea grass plots can dispense with grass-cutters: but Guinea grass, while luxuriant in wet weather, is apt to fail in seasons of drought. As the best grass grows on the roadsides, and as the road officers wish to preserve this sward, while the grass-cutters seize every occasion to pare it off, the relations between the two classes is that of chronic warfare. It would be unjust not to acknowledge the natural talent of eloquence possessed by this class of people, eminently by the females. Their vocabulary may be limited; but for emphasis of tone and energy of gesture they can bear comparison with the orator who

"Shook the Senate and fulminated all Greece."

As their discussions are usually carried on in the open air, they can never put in the plea, "Unaccustomed as I am to public speaking."

The cheapness of arrack in Ceylon does not improve the character of the horsekeeper class in Ceylon, and a drunken horsekeeper is a spectacle as common as that of a drunken Sinhalese house-servant is rare.

The IMMIGRANT LABOURERS who work on the tea, etc., plantations are of the same race with the horsekeepers, but they rarely take spirits to excess; and the large majority of them succeed in the object for which they come to Ceylon,—that of saving rupees to enable them to return to their "country": that country being amongst the rice lands of Tanjore, Trichinopoly, and Madura, the palmyra groves of Tinnevely or the coco-nut "topes" of Travancore, rich enough to clear away encumbrances on their patrimonial fields, to add to those fields, or to become for the first time landholders on their own account. Immigration, carefully regulated as it is in the interests of the weaker and less intelligent class, is an equal blessing to sparsely peopled Ceylon and the overcrowded population of Southern India. Happily no plantation in Ceylon has ever been opened by means of slave labour (the mild prædial

slavery which existed amongst the natives was finally abolished in 1844), and consequently the relations between the European planters and their Tamil labourers are generally of a happy character. The Tamils are not strong (many of the poor creatures come to Ceylon resembling locomotive skeletons), but they are docile and good-tempered, and soon learn to perform very fairly all the details of estate work,—their small, lithe hands giving them eminent facilities for the important operations of pruning and handling the coffee bushes. Large numbers of these people are settling in Ceylon, acquiring competence as cart drivers, landowners, small traders, etc.

To return to the Sinhalese. The **DHOBY**, or **WASHERMAN** (there are no native washerwomen) is as invariably Sinhalese (except in the purely Tamil districts of the north and east of the island) as the attendants on horses are Tamils. These dhobies wash clothes beautifully white, but they require careful looking after, or they will lend out articles of clothing, or exchange bad for good. They must be warned, also, not to "Europe" the clothing too much, or they will beat them on flat stones in waterpools until cotton clothing is better fitted for the use of the papermaker than that of the owner. "Fast colours" very often yield to the bleaching of these dhobies. The **BARBER** is a welcome daily visitor to young gentlemen, who, though they may not boast of much beard, delight in receiving, and by means of the barber retailing, such gossip as that "the Dutch have taken Holland," that "Smith is going to get married to Brown's wife," etc. The services of the **WATERMAN** will be required in a large portion of Colombo to boat over and distribute the drinking water from the wells in "Captain's Garden" (a peninsula jutting out into the lake opposite the Pettah), until the projected works for bringing the waters of the Kalany into Colombo are in operation. The Queen's House **LASCOREEN**, clad in scarlet jacket and plumed hat, is one of the half-dozen attendants provided for the Governor, to receive visitors, go messages, accompany the vice-regal carriage, etc. The **lascoreen** survives as a reminder of the abortive attempts made to convert the Sinhalese into soldiers. A former Colonial Secretary said that you never could be certain that they would not fire the ramrod at you. Whatever they may have been in the time of the great Raja Singha, the Sinhalese are not now distinguished for military instincts or aspirations. Of the **BUDDHIST PRIEST** and the **TODDY DRAWER** we have already spoken; but we must not overlook the useful and industrious **FISHERMAN**, remarkable for his broad-brimmed straw hat and thick military coat, contrasting so strangely with his nude lower limbs. He represents a class composed very largely of Roman Catholic Christians, Xavier and other early missionaries having found ready converts amongst the fisher caste all over India. In a MS. note attached by Mr. Vandort to *his* sketch of the fisherman, he writes:—"Being a devout Catholic, the fisherman dedicates a portion of his earnings to his patron saint, St. Anthony. He also gives up, according to old usage, an unlimited quantity of fish to the members of the barbers' community, who thus levy a tax on the fishermen for assisting them at weddings, funerals, etc. Like all sailors, the fisherman is very superstitious; a certain public Government functionary in the employ of the Fiscal of Colombo [the executioner] derives a handsome profit (whenever he has assisted in turning off any unfortunate gallows bird) in selling pieces of the cord used on such occasions, the lucky possessors of which attach them to their nets to ensure miraculous draughts of fishes." The liberality with which these people support the faith they profess is calculated to put to shame more enlightened and richer Christians. Besides extraordinary

contributions, the fishermen have almost universally agreed to bestow the tenth of the produce of their labours, which Government relinquished about a score of years ago, on the churches of their persuasion.

The cry of "Kaddela! kaddela! kaddelay?" which the Tamil pulse-selling woman sends forth is dear even to European children in Ceylon, who, however, listen with still greater delight to the cry of the sweet-meat-seller, "Sinee-sakerec-metai!"

Of the Malay "**PASONG WOMAN**" Mr. Vandort writes:—"Chiefly met with on Thursdays (the day before the Mahommedan sabbath), 'Pasong' is a sort of sweet pudding made with rice-flower and jaggery, with a frothy head of coco-nut milk, and rolled up in conical envelopes of plaintain leaf, very difficult to be procured on any day except Thursdays. Malay women wear a dress similar to that worn by Moorish women; the only difference is that the wrapper or overall is worn much more open by the Malays, and the material is not muslin, but a thick checked Comboy or Sarong. The nose-rings, necklaces, anklets, and the rest of the dress is the same as those worn by the Moorish women. Having already noticed the musical mechanic, we would simply say in regard to the "minstrel priest," so called, that Hindoo sacerdotal beggars are, by the laws of Ceylon, exempt from the penalties with which those laws visit other able-bodied vagrants; just as those professional (but well-to-do) mendicants, the Buddhist priests, are put in the same category with the Governor, the military, and immigrant labourers as exempt from the six days' labour on the roads, or their money equivalent enacted from the adult males of all other classes in the colony.

The truth as well as the cleverness of the **LAW COURT ODDITIES** will be recognised by those who know what law and litigation are in Ceylon. The whole population, men, women, and even children by their representatives, would seem to be engaged in endless law suits. The law of inheritance, as it exists amongst the natives, has a good deal to do with this. The people dearly prize land and fruit-bearing trees, and most of the litigation refers to such matters as the title to "undivided shares" of land and, the right in an almost infinitesimally fractional part of a coco-nut tree. The following statement, by a party to a land case, will show what is the nature of the questions which bewildered English magistrates have to hear and decide:—

"By inheritance through my father I am entitled to one-fourth of one-third of one-eighth; through my mother also to one-fourth of one-third of one-eighth. By purchase from one set of co-heirs I am entitled to one-ninety-sixth; from another set, to one-ninety-sixth more; from another set, to one-ninety-sixth more; and from a fourth set of co-heirs to one-one-hundred-and-forty-fourth."

Caste and class distinctions are not now recognised by the laws of Ceylon. In the period of Dutch rule the case was very different, and even in the early years of the British Government caste distinctions were not only upheld but enforced. One of those worthy Dutch magistrates whom the British continued in office after the capitulation, was in the habit of mixing up legislative and judicial functions after the fashion illustrated by the following decisions, in which Mynheer's English must not be too severely criticised:—

"Pantura, Magistrates' Court, 15th March, 1815.

"Sentenced Dinetti Carolis Silva Cangan to pay a fine of Rds. 10, that he, being a Chalia, allowed a married fisherwoman to remain in his garden without the foreknowledge of her husband, nor of the police vidan of the village. And his son Dinetti Siman Silva do bail himself

in Rds. 25, and two surities for Rds. 25, that he shall not go to the house of complainer's wife, neither talk with her.

"Saturday, 25th, Feb., 1815, appeared Paniloewege Nicholas, of Labugama, 28 years old, headen [heathen, F.] ; and requested to marry with Punchy Hamy. Appeared Punchy Hamy, of Labugama, old 18 years, headen, and complains that she cannot remain at the Police Vidan, Ritiellege Don Juan ; because he beats her she went out of his house to the above Paniloewege Nicholas, as she is acquainted with him from a long time ; and requested to marry with him. Ritiellege Don Juan, Police Vidan, admitted that he had bated Poentjee Hamy. Ordered that Paniloewegey Nicholas, of Labugama, do marry according to their law, with Punchy Hamy of Labugama."

The laws of Ceylon are now administered after a different fashion.

The bar affords an attractive field for the educated burgher and native youth, and the profession would be overcrowded, but for the inveterate litigation mania of the people. The Honourable Mr. Morgan, the able Queen's Advocate of Ceylon, tells with great glee, a story of a native client of his, whom he had not seen for some time, and who apologised for neglecting to visit him by saying, "Oh, Sir, I was ashamed to see your face, as I had no case to bring to you !" The figures, as freely limned by Mr. Vandort, tell their own tale. There is—

—the Justice

In fair round belly with good capon lined,

With eyes severe——

Full of wise saws and modern instances."

His dignified position (flanked by "sword" and "mace," with registrar, marshal, and crier in attendance), the envy and the hope of the contemplative student, who sits listening to the opposite counsel, as they quote "Archbold's Reports," "Taylor on Evidence," "The Principles of the Roman Dutch Code, as laid down by Voet (pronounced Foot), or Van Leuwen," or "The Mysteries of Kandian and 'Country' Laws." The absorbed native jurymen (who keenly appreciate the deference with which they are appealed to as "gentlemen," and who, on the whole, give fair verdicts), remind one of the question to which Thurlow's personal appearance gave rise, "I wonder if ever human being was as wise as Thurlow looks"; while the terrified expression with which the bewildered witness regards the stately interpreter (who never—no never—receives visitors and gifts, and never settles cases at his private residence), is a striking contrast to the impudent air of the well-conditioned criminal, with whom prison fare and gentle exercise have evidently agreed. If the prisoner's garments are somewhat scanty, the same cannot be said of the dark policeman, tortured and made hideous by the incongruous uniform, introduced by a former superintendent, who brought with him to the island implicit faith in the effect even of the dress of the Irish constabulary. While we are writing, Mr. Campbell, the present superintendent, is superseding this stiff and inappropriate dress by one better suited for Asiatics and a tropical climate. The relations of a proctor in full practice to a client destitute of a full purse are significantly indicated in the figures of the two characters ; while all the penalties of the law of libel staring us in the face prevent our even hinting at the possibility of an argentine argument having influenced the *non est inventus* of the fiscal's peon or messenger. It is a curious fact, however, that some of the best known men of the community are, by some mysterious process, "not to be found," when sought for, at the instance of disconsolate creditors, although they placidly dwell in their usual abodes and pursue their

ordinary avocations visible enough to the eyes of their neighbours. But the crier, in stentorian tones, adjourns the Court in the name of "My Lord, the Queen's Justice !" and we shut up—our book.

But we must not so conclude a work in which we wish the readers to find useful information as well as amusement. In the years of our residence we have seen many changes in Ceylon and its inhabitants. Mr. Spence Hardy, reviewing a period more extended by a score of years, thus indicates the difference between the Ceylon of the early years of the nineteenth century, and the same country after Protestant missionaries had been at work in it for fifty years, and British planters for more than thirty:—

"Were some Sinhalese appohamy to arise, who had gone down to the grave fifty years ago, and from that time remained unconscious, he would not know his own land or people, and when told where he was, he would scarcely believe his eyes, and would have some difficulty with his ears ; for though there would be the old language, even that would be mixed with many words that to him would be utterly unintelligible. Looking at his own countrymen, he would say that in his time both the head and the feet were uncovered, but that now they cover both ; or perhaps he would think that the youths whom he saw with stockings and shoes and cap were of some other nation. What he would say to his countrywomen, with their awkward crinoline, we must leave to conjecture. He would be shocked at the heedlessness with which appós and naidés, and everybody else, roll along in their bullock bandies, passing even the carriage of the white man whenever they are able, by dint of tail-pulling or hard blows ; and when he saw the horsekeepers riding by the side of their masters and sitting on the same seat, there would be some expression of strong indignation. He would listen in vain for the 'ho-he-voh !' of the palanquin bearers, and their loud shouts ; and would look in vain for the tomjohns and doolies, and for the old lascoreens, with their talipots and formal dress. He would be surprised at seeing so many women walking in the road, laughing and talking together like men, but with no burdens on their heads, and nothing in their hands, and their clothes not clean enough for them to be going to the temple. He would, perhaps, complain of the hard roads, as we have heard a native gentleman from Calpentyn, and say that the soft sand was much better. He would wonder where all the tiles come from to cover so many houses, and would think that the high-caste families must have multiplied amazingly for them to require so many stately mansions ; and the porticos, and the round white pillars, and the trees growing in the compound bearing nothing but long thin thorns, or with pale yellow leaves instead of green ones, would be objects of great attraction. He would fancy that the Moormen must have increased at a great rate, as he would take the tall chimneys of the coffee stores to be the minarets of mosques, until he saw the smoke proceeding from them, and then he would be puzzled to know what they could be. In the bazaar he would stare at the policemen, and the potatoes, and the loaves of bread, and a hundred things that no bazaar ever saw in his day, and would wonder what they all meant. And the talk about planters, and barbecues, and coolie immigration, and the overland, and penny postage, and bishops, and agents of government, and the legislative council, and banks, and newspapers, and mail coaches, would confuse him by the strangeness of the terms. He would listen incredulously when told that there is no rájakariya, or forced labour, and no fish tax ; and that there are no slaves ; and that you can cut down a cinnamon tree in your own garden without having to pay a heavy fine. Remembering that when Governor

North made the tour of the island, he was accompanied by 160 palanquin bearers, 400 coolies, 2 elephants, and 50 lascoreens, and that at Matura burning incense was carried before him in silver vessels; and knowing that when the adigar *Æthelapola* visited Colombo he had with him a retinue of a thousand retainers, and several elephants, he would think it impossible that the governor could go on a tour of inspection, or a judge on circuit, without white olas lining the roadside, and triumphal arches, and javelin men, and tomtoms, and a vast array of attendants. Of course he would know nothing about steamboats, or railways, or telegrams, or photographs, as these would be wonders anywhere in the same circumstances. He would ask, perhaps, what king now reigns in Kandy, and whether he had mutilated any more of the subjects of Britain; and whether there was any recent news about Napoleon Buonaparte; and whether old King George had recovered his sight or his reason.

"From these supposed surprises we may learn something in relation to the changes that have taken place in the island since the commencement of the mission; but we cannot tell a tithe of the whole."

After quoting the details of material, intellectual, and spiritual progress during the fifty years' existence of the mission of which he was so distinguished a member, Mr. Hardy thus winds up:—

"Nearly all the social and political privileges that Englishmen possess at home, the Ceylonese enjoy in this island. In Britain, lives without number have been sacrificed, on the scaffold and elsewhere, by its patriots; tortures of the most appalling character have been endured, and battles many have been fought, to secure to its people the freedom they now enjoy; and yet nearly every advantage connected with the birthright of the Briton, thus dearly purchased, is now possessed by the natives of this and other colonies, though neither they nor their forefathers ever paid for them a fraction of their property, or endured for them a single privation, or lost one life. The nations who can live on the produce of the coco-nut tree, and need no more clothing than a rag, to wrap round their loins, for decency rather than dress, would remain slaves as long as the race lasts, all classes exposed to the tyranny of every grade above them, without an effort to better their state, if men who have breathed the rime and braved the snowstorm did not break their fetters, and teach them to be free. In all that regards character and comfort, in all things that raise man in the scale of being, in all that takes the rubble from within him and puts soul-ore in its place; the people of Ceylon are favoured with greater helps than have previously been known to any rice-eating nation in the world."

We close with the expression of our confident hope that ultimately the inhabitants of Ceylon will prove that the blessings of pure Christianity and matured civilisation have not been brought to them in vain; but that the island will yet be in truth what it has been styled in the narratives of tradition and the language of poetry,

"*The Eden of the East*"

—a land not only of natural beauty but of spiritual purity, manliness and love.

APPENDIX XV.

NATIVE GLOSSARY.

[Prepared for the Ceylon Government by the late Maha Mudaliyar J. De Zozya, Chief Translator.]

[Abbreviations :—Skt. Sanskrit. P. Páli. S. Sinhalese. T. Tamil.]

I.—RELIGIOUS TERMS.

Abhidharma.—One of the three divisions of the sacred writings of Buddhism, that which treats of metaphysics.

Akusala.—Demerit, sin.

Amarapura Samágama.—(From *Amarapura*, the capital of the Burmese Empire, and *Samágama*, a society.) The Amarapura sect of Buddhists in Ceylon, who are in communion with the priests of Burma. This sect was introduced into Ceylon about A.D. 1800 by Ambagahapitiye, a priest of the Salagama (Chalia) caste.

Anágámi.—The third state of sanctification: the word signifies that which does not return; regeneration in the human world being overcome. (Turnour.)

Apáya.—A state of existence regarded as retributive punishment. There are four such states: viz., 1, in hell; 2, existence as an irrational animal; 3, as a *Préta*, a sprite, or hobgoblin; and, 4, as an *Asura*, a demon, an enemy of the gods.

A'patti.—A misdemeanour committed by a priest.

A'rya } The last of the four paths or stages of sanctification leading
Arhyat } to Nirwána, *q.v.*

Arúpa.—Incorporeal.

Arúpa Bhava.—(From *a*, priv., *rúpa*, form, and *bhava*, existence.) Existence without a form. One of the Brahma lóka in which the mind exists without the body.

Asankhya.—(From *a*, priv., *sankhya*, number.) A number inconceivably vast.

Asura.—(From *a*, neg., and *sura*, a god.) An Asur or Demon. The Asuras are children of Diti by Kásyapa; they are demons of the first order; and in perpetual hostility with the gods. (Wilson.)

Atasil.—The eight precepts to be observed by an Upásaka (devotee) forbid, 1, the taking of life; 2, the taking of that which is not given; 3, sexual intercourse; 4, the saying of that which is not true; 5, the use of intoxicating drinks; 6, the eating of solid food after midday; 7, attendance upon dancing, singing, music, and masks, and the adorning of the body with flowers and the use of perfumes and unguents; 8, the use of seats or couches above the prescribed height. (Cf. *Dasasil* and *Pañchasílaya*.)

Atapirikara.—The eight priestly requisites: 1, 2, 3, robes of different

- descriptions ; 4, a girdle for the loins ; 5, a pátra or alms bowl ; 6, a razor ; 7, a needle ; 8, a perahankada, or water strainer.
- Awidyá*.—Ignorance, the cause of the continuance of existence.
- Bana*.—The word of Buddha.
- Bana maduwa*.—A temporary building in which *bana* is preached.
- Banapirita*.—(From *bana*, and *pirita*, exorcism.) The reading of certain discourses of Buddha by way of exorcism.
- Banapota*.—A religious book.
- Bhagawá*.—A term for Buddha.
- Bhawa*.—Existence.
- Bhāwaná*.—Meditation.
- Bhikkhu*.—(In Páli *Bhikkhu*.) A Buddhist Priest—lit., a mendicant.
- Bógha*.—The Bó tree (*ficus religiosa*). Gautama, the Buddha of the present age, is said to have attained Buddhahood whilst seated at the foot of a Bó tree at *Buddha Gaya* in India ; the tree is believed to exist there still, and is an object of worship to the Buddhists. The Bó tree at Anurádhapura, planted there in the reign of Déwānanpiyatissa, B.C. 306—266, is said to be the right branch of that tree.
- Bódhi*.—The Páli form of the above.
- Bódhi manda*.—The terrace of the Bó tree at *Buddha Gaya* in India.
- Bódhisatwayo*.—A candidate for Buddhahood.
- Bósat*.—Another term for the above.
- Brahma*.—Usually called the Mahá Brahma, the highest of the gods. The first person of the Hindu Triad.
- Bráhmaṇa*.—A Brahman.
- Bráhmaṇamāṇsá*.—The caste of Brahmins.
- Brahmayo*.—A superior order of gods. The Brahmayó.
- Brahmalókaya*.—The world of the Brahmayó.
- Brahmachariyáwa*.—Continenence, leading the life of a *Brahma* who is free from passion.
- Buddha*.—(From the root *budha*, to know, to comprehend.) P. *Buddha*, commonly in S. *Buduhu* and corruptly *Budun*.) Buddha. The founder of Buddhism. A being who has attained perfect knowledge.
- Buddha varshé*.—The Buddhist era. It is reckoned from the death of Gautama Buddha, B. C. 543.
- Budures*.—(From *Budu*, Buddha, and *res*, a ray of light.) Rays of light of the six primitive colours supposed to proceed from the body of Buddha, and also from shrines, in which his relics are deposited.
- Buddhántara*.—The period intervening between the death of one Buddha and the advent of another.
- Chatiya*.—(P. *Chetiya*, in Elu Séya.) A depository of the relics of Buddha. A Dágoba.
- Chatussatyaya* } The four chief truths of Buddhism ; 1, That
Chaturárya satyaya } every existent thing is a source of sorrow ;
 2, That continued sorrow results from a continued attachment to existing objects ; 3, That a freedom from this attachment liberates from existence ; 4, The paths leading to this state, containing eight sections. (Gogerly.)
- Dágoba*.—(From *dá*, relics, and *geba*, a receptacle.) A bell-shaped structure in which the relics of Buddha and other holy personages are deposited.
- Daladdá*.—The canine tooth of Buddha.
- Daládmáligáwa*.—(From *Daladdá*, the right canine tooth, and *Máligáwa*, a palace, a mansion.) The temple of the tooth-relic at Kandy.
- Dánaya*.—Almsgiving.

Dasa-páramitá.—The ten probationary courses or exercises of a candidate for Buddhahood: 1, *Dána páramitá*, the giving of alms; 2, *Sila páramitá*, observance of religious precepts; 3, *Naiskramya páramitá*, abandonment of wealth and retirement from the world; 4, *Pragñá páramitá*, or virtue proceeding from wisdom; 5, *Wírya páramitá*, or virtue proceeding from determined courage; 6, *Kshánti páramitá*, or virtue proceeding from forbearance; 7, *Satya páramitá*, or virtue proceeding from truth; 8, *Adhishtána páramitá*, or virtue proceeding from unalterable resolution; 9, *Maitri páramitá*, or virtue proceeding from kindness and affection; 10, *Upéksá páramitá*, or virtue proceeding from equanimity. (Hardy.)

Dasa-rája-dharmaya.—The ten regal virtues are; 1, the giving of alms; 2, the observance of the *síl* (religious precepts); 3, bestowal of wealth on deserving objects (liberality); 4, uprightness; 5, mildness or generosity; 6, performance of penance; 7, freedom from malice; 8, abstaining from acts of oppression; 9, forbearance; 10, consistency.

Dasa-síl.—The ten obligations binding upon the priest forbid; 1, the taking of life; 2, the taking of that which is not given; 3, sexual intercourse; 4, the saying of that which is not true; 5, the use of intoxicating drinks; 6, the eating of solid food after midday; 7, attendance upon dancing, singing, music and masks, etc.; 8, the adorning of the body with flowers and the use of perfumes and unguents; 9, the use of seats or couches above the prescribed height; 10, the receiving of gold or silver. (Hardy.) (*Cf. Atasil and Pañchasílaya*.)

Dewiyo.—Gods.

Déwatá.—Another term for a god. An inferior god.

Déwálé.—A temple dedicated to a god.

Déwayan-náhanse.—An honorific term of address used to the kings of Kandy, answering to "Your Majesty," lit. "your god-ship."

Déwi.—A goddess, a princess.

Déwalókaya.—The celestial world—the world of the *Dewiyó* (gods).

Dharma.—Doctrines of Buddha.

Dhátu.—Relics.

Dhyána.—Abstract meditation leading to the entire destruction of all cleaving to existence.

Dwésa.—Anger.

Ganá-dewiyó.—(Skt. Ganesha.) "Son of Siva, the god of wisdom and remover of difficulties and obstacles, addressed at the commencement of all undertakings, and at the opening of all composition." (Williams.)

Ganinnánse.—A term for a Buddhist priest.

Garuda.—A fabulous bird, the vehicle of Vishnu.

Gáthá.—The Páli term for a stanza.

Gautama.—The name of the Buddha of the present kalpa or age.

Gotama.—The Páli form of Gautama.

Grahayá.—A planet.

Grahastá.—(Elu. gihi.) A layman.

Grahapati.—A householder, a layman.

Iráhi.—Supernatural power.

Íswara.—Another term for Siva, *q. v.*

Játaka-pota.—The book of birth-stories or histories of the life of Gautama Buddha in the various stages of existence, of which 550 are recorded. Hence the book is sometimes called *Pansiya-panas-Játaka-pota*. "The book of the 550 birth-stories."

Karma.—(P. *Kamma*.) Moral action, the power that controls all things
Kāma.—Desire, lust.

Kāma lōkaya.—The world of passion—the world inhabited by beings possessed of desire—in contrast to the *Brahma Lōkaya*, or world of beings free from all desire.

Kapuvā.—The officiating priest of a *Dēwālē* or *Kōwila*, *q. v.*

Kathina.—The cloth, or robe, presented to a Buddhist Priest at the close of the *Was* ceremony (*vide infra sub voce* 'was').

Kataragama Dewiyō.—The Indian god of war. The deity presiding at *Kataragama Dēwālē*.

Kōwila.—A Hindu temple.

Kusala.—Merit, meritorious action.

Mahā Brahma.—The highest of the gods. The first person in the Hindu Triad—*Brahma*, *Vishnu*, and *Siva*.

Mahanunnānsē.—A term for a Buddhist priest.

Mahāmēru.—A fabulous mountain said to be in the centre of the world.

Maitrī.—The name of a future Buddha, the predicted successor of *Gautama*, the Buddha of the present age.

Mārayā.—A god, the enemy of Buddha, death personified.

Mataka dānē.—Alms given for the benefit of the soul of the deceased.

Mōha.—Ignorance.

Mōksha.—A term for *Nirwāna*, *q. v.*

Narakādiya.—Hell.

Nirwāna.—(Stated to be derived from *nī*, neg., and *wāna*, desire.) The ultimate reward of a holy life through successive states of existence. The precise nature of the reward is a moot point: some believe it to be "absolute nihility," others "exemption from transmigration in a state of eternal repose,"—a state incapable alike of pleasure and of pain.—The writings of Buddha teach that it is attained by four paths, or states of sanctification; 1, *Sōwān*, in Pāli *Sotāpatti*; 2, *Sakradāgāmi*; 3, *Anāgāmi*; 4, *Arahanta*.

Ūpapātika.—"Apparitional birth, the circumstance of *Brahmas* and *Dēwas* becoming suddenly manifest as such in the appropriate regions." (Armour.)

Pāmmaduwa.—(From *Pān*, a lamp or light, and *maduwa*, a temporary building.) A ceremony in honour of the goddess *Pattini*, in which a number of small torches are lighted up by the *Kapuvā*, *q. v.*

Pansala.—The residence of a Buddhist priest.

Pañchaskhandaya.—The five constituent parts or elements of a human being.

Pañchakāmaya.—The five objects of sense—form, sound, smell, taste and touch; the gratification of the pleasures attached to the five senses.

Pañchasilaya.—(S. *pansil*.—The five precepts to be observed by all Buddhists.) These precepts forbid: 1, the taking of life; 2, the taking of that which is not given; 3, fornication and adultery; 4, the saying of that which is not true; 5, the use of intoxicating drinks (*cf. Atasil and Dasasil*).

Pārājikā.—A crime, the punishment for which is expulsion from the priesthood. There are four such crimes, *viz.*, sexual intercourse, theft, murder, and false assumption of the character of a *rahat*, or inspired priest.

Pasaloswaka.—Full moon.

Pase Budu.—(Skt. *Pratyēka Buddha*, P. *Pachēka Buddha*.) An order of Buddhas inferior to the supreme Buddha.

Pattini Deriyo.—The goddess *Pattini*. The patroness of chastity.

Putichoha samuppāda.—The circle of existence.

Pátra.—Alms-bowl of a Buddhist priest.

Perahera.—A procession, a festival. The Perahera takes place in Esala (July—August), commencing with the new moon in that month and continuing till the full moon. The most celebrated of these processions is held at Kandy. It is a Hindu festival in honour of the four deities, Nátha, Vishnu, Kataragama, and Pattini, but in the reign of Kirtissiri (A.D. 1747–1780), a body of priests who came over from Siam, for the purpose of restoring the Upasampadá ordination, objected to the observance of this Hindu ceremony in a Buddhist country. To remove their scruples the king ordered the Daladá relic of Buddha to be carried thenceforth in procession with the insignia of the four deities; nevertheless, the Perahera is not regarded as a Buddhist ceremony.

Perahankada.—Water strainer of a priest or devotee.

Pim.—Meritorious action.

Pindapáta.—Begging of food.

Pinkama.—A religious festival.

Pirit.—Exorcism.

Pitaka.—A division of the sacred writings of Buddha lit. a basket.

Póya.—The days on which the moon changes, held sacred by the Buddhists.

Póyagé.—A building in which certain priestly rites are practised on Póya days.

Prátimóksha.—A manual of rituals.

Préta.—A sprite, a hobgoblin.

Pudgalika.—Belonging to an individual. *Pudgalika vastuna* is property belonging to individual priests, as distinguished from *Sáṅghika vastuna*, property belonging to the body of priests in common.

Rahat.—A rahat. One who has attained the four paths or stages sanctification leading to Nirvána. A being entirely free from evil desire, and possessing supernatural power.

Rága.—Lust, evil desire.

Ravvava.—A hell so named.

Rishi.—A sage.

Rúpa.—Form.

Rúpabhava.—Those Brahma worlds in which the body exists without the mind.

Sádhu.—An expression of joy. Well-done ! good !

Sákya.—A patronymic of Gautama Buddha.

Sákyawansa.—The royal race to which Gautama Buddha belonged.

Sákyamuni.—A term for Gautama Buddha.

Sékrayá.—The chief deity of the six lower heavens. Indra.

Satyakriyá.—Appeal to truth, by which miracles are performed.

Saman Dewió.—The tutelary deity of Samanala (Adam's Peak).

Samanala.—The mountain Samanala (Adam's Peak), on the top of which Buddhists believe that there is the impression of Buddha's left foot.

Samádhi.—"A power that enables its possessor to exercise an entire control over his faculties, and keep them in perfect restraint."

Samánéra.—A novice, a priest who has not received the rite of Upasampadá ordination.

Sangha.—The associated priesthood.

Sáṅghika.—Belonging to the priesthood in common.

Sakwala.—A system of worlds—the Universe.

Sakradágami.—The second path or stage of sanctification leading to Nirvána, q.r.

- *Samsāraya*.—Transmigratory existence.
- Sāsane*.—The Buddhist religion.
- Sil*.—Religious precept or observance.
- Śīmā*.—Boundary. A consecrated place having certain limits, in which priests are ordained, and other religious rites performed.
- Siyam Samāgama*.—(From *Siyam*, Siam, and *Samāgama*, society.) The Siamese sect of Buddhists in Ceylon introduced by King Kirtissiri Rājasinha, A.D. 1750.
- Sivā*.—The third person of the Hindu Triad. The Destroyer.
- Sōvān*.—The first path or stage of sanctification which conveys the individual attaining it to other stages. Pāli, *Sōtāpatti*, from *sōta*, a rushing torrent. (Turnour.)
- Sramana*.—A Buddhist priest.
- Sūtra*.—A discourse, or sermon of Buddha.
- Sūtra pitaka*.—One of the three divisions of the Sacred Writings of Buddhism.
- Swarga*.—Heaven.
- Terunnānsē*.—A Buddhist priest of a superior order.
- Thero*.—The Pāli form of the above.
- Tripitaka*.—(From *tri*, three, and *pitaka*, a basket, a receptacle.) The three divisions of the Sacred Writings of Buddhism, namely the *Abhidharma*, *Winaya* and *Sūtra Pitakas*.
- Trividharatnaya*.—The three gems, viz., Buddha, his doctrines, and the associated priesthood.
- Tisarana*.—The three helps, viz., Buddha, his doctrines, and the associated priesthood.
- Tunsaranaya*.—Another term for the above.
- Tunlwa*.—The three worlds, viz., the world of gods, the world of men, and the *pātāla* or lower regions inhabited by demons and Asuras.
- Upasampaddā*.—Ordination to the order of Upasampadā or that of superior priest.
- Upālya*.—The Chief Priest who presides at the ordination of priests. A religious teacher.
- Upāsaka*.—A lay devotee.
- Upāsikā*.—A female lay devotee.
- Veda*.—Skt. "The general name of the chief scriptural authorities of the Hindus ; it is most correctly applied to the four canonical works entitled severally the Rig-Veda, Yajur-Veda, Sama-Veda, and Atharva-Veda, but it is extended to other works of supposed inspired origin in the sense of a science or system, as A'yur-Veda, the science of life, i.e., Medicine ; Dhanur-Veda, the science of the bow, or military science ; Gāndharva-Veda, the science of Music, so named from the heavenly musicians or Gāndharvas." (Wilson.)
- Vibhāsana*.—A god—brother of Rāvanā, the tutelar deity at Kelani.
- Vihāra*.—A Buddhist temple.
- Vishnu*.—The second person of the Hindu Triad, the Preserver. The tutelar deity of Lankā.
- Was*.—"The four months of the rainy season from the full moon of July to the full moon of November ; during which period Buddhist priests are permitted and enjoined to abstain from alms, pilgrimage, and to devote themselves to stationary religious observances." (Turnour.)
- Winayapitaka*.—(From *winaya*, discipline, and *pitaka*, a basket, or depository.) The laws of the Buddhist priesthood. *Winayapitaka* is that division of the Sacred Writings of Buddha which treats of the discipline and laws of the priesthood.

Wesamuni.—The deity presiding over demons.

Yakk.—A demon. The term is also applied to the aborigines of Lanka who were expelled by Wijaya, the first Sinhalese king.

Yakunnetima.—A devil ceremony, dancing to propitiate the demons.

Yama.—"God of *Naraka* or hell, Regent of the South or lower world, and Judge of departed souls, corresponding to the Grecian god Pluto, or to the Judge of Hell, Minos." (Williams.)

Yāga.—A religious ceremony of the Hindus.

II.—OFFICERS.

Adikārama.—(From S. Adhikāri), *Adikārama*. Corruptly Adigar, Adikar. Superintendent, Prime Minister, or Chief Officer of State under the Kings of Kandy.

Anundāyaka Unnānsē.—Assistant or second Chief Priest.

A'rachchila.—Corruptly *Aratchy*, an officer over a village or group of villages, and in rank below a *Kórāla* in the Kandyan, and below a *Muhandiram* in the low country.

A'chchila.—A Kandyan form of the above word.

Atapattura.—The peon or messenger staff of the *Disāwa*.

Atapattu Mudiyanse.—Mudaliyār of the *Atapattu*.

Atapattu Lékama.—The *Lékama*, (writer or secretary) of the *Atapattu*.

Atapattu A'rachchi.—A'rachchi of the *Atapattu*.

Atapattupérura.—The Department of the *Atapattu*.

Atukórāla.

Atukóralayā. } An assistant to a *Kórāla*.

Basāyaka Nilamē.—Principal or lay incumbent of a *Déwālē*, or Hindu temple.

Disāwa.—Governor of a province.

Diyanadana Nilame.—Principal lay officer of the *Daladámáligāwa* (palace of the tooth-relic.)

Diva Nilame.—The usual title of the above officer.

Dugganna Nilame.—A personal attendant on the king.

Dugganna Pérura.—The class from which the chiefs appointed personal attendants on the king.

Durayā.—A headman of the *Wamhumpura*, *Baddē*, or *Paduwā* caste.

Gabadā Nilame.—Officer in charge of the royal stores.

Gajandāyaka Nilame.—Officer in charge of the elephants.

Galgāná Hangidiya.—Chief of stonemasons.

Gamarāla.—A village chief or headman.

Gannahe.—A village headman. A headman of *Veddās*.

Ganārachchi.—An A'rachchi of a village.

Haluwadana Nilame.—Officer in charge of the royal robes.

Hangidiya.—Head smith.

Hulawāliya.—A headman of the *Rodiyās*.

Hunkiri A'chchila.—Officer who supplies fresh milk.

Kasakāra Lékama.—Officer in charge of the whip crackers, or persons appointed to walk with whips in front of the *Adikārs*.

Kankānāma.—An inferior officer below the rank of an A'rachchi.

Katupullē.—The police staff of the *Disāwa*.

Kelē Kórāla.—Officer in charge of forests. Conservator of forests.

Kōdituwākkū Lékama.—Officer in charge of the *Gingals* (Artillery.)

Kōdituwākkū Muhandirama.—The *Muhandiram* of the *Gingal* Department.

Kottalbadē milāchāriyā.—Head of the artificers or smiths.

Kórāla.—A Revenue officer under a *Ratémahatmayā*.

- Kúruwé Lékama*.—A headman of the Kúruwa or elephant department.
Lékama.—Writer, secretary, registrar.
Léhammahatmayá.—The above, with the addition of the honorific affix *Mahatmayá*.
Liyana A'rachchi.—A writer, holding the rank of A'rachchi.
Liyana Muhandirama.—A writer, holding the rank of Muhandiram.
Liyana Appu.—A writer, a clerk.
Liyana rāla.—Another term for a clerk, with the honorific affix *rāla*.
Maha Nilame.—Another term for the Adikár, lit. "the great officer."
Maha Lékama.—The principal writer or secretary.
Maha Mudiyansé.—Maha Mudaliyar.
Maha Náyaka Unnānsé.—High Priest.
Maha Vidāné.—A rank above an A'rachchi and below a Muhandiram.
Maha Vidāna Muhandirama.—A rank higher than the above.
Maha Vidāna Mudiyansé.—A rank still higher.
Mohottāla.—A clerk.
Mohottiyar.—A rank in the low country higher than a Mudaliyar, and above a Muhandiram.
Mohotti Mudiyansé.—A rank in the low country higher than a Mohottiyar, but below an effective Mudaliyar.
Mudiyansé.—Mudaliyar.
Muhandirama.—A rank so called, below a Mudaliyar, and above an A'rachchi.
Oli Vidāné.—Vidāna over the Oliyá caste or dancers.
Panikkiyá.—A headman of low caste. 'An elephant catcher.
Paniwidakáraya
Paydakárayá } A Kandyan term for a headman of inferior rank.
Paniwidakarana Nilamé.—An attendant on the king, corresponding to a lord in waiting.
Patabendá.—A fisher headman.
Patabendi A'rachchi.—A rank, generally held by fishers.
Ratémahatmayá.—Chief revenue officer of a Kandyan district.
Vidāné.—(From *Vidhāna karanawá* to "order," "to manage.") An inferior officer so named. Corruptly *Vidahn*.
Vidāna A'rachchi.—A revenue officer in the low country in charge of a village or number of villages. Corruptly *Vidahn Aratchy*.
Vidāna Muhandirama.—A rank higher than the above.
Vidānadurayá.—A headman of the Paduwá caste.
Vidāna Hénayá.—A headman of the washer caste in the Kandyan country.
Wanni Unnehé.—A chieftain of the Wanni district.
Wel-widāné.—An irrigation headman.
Wel-widāna drachchi.—An irrigation headman.
Wibadulékama.—A writer of the paddy Wattóru.
Wibadu A'rachchi.—An A'rachchi attached to the paddy tax department.

III.—HONORIFIC TITLES OF ADDRESS.

MALES.

Appu.
Appuhámi.
Bandá.
Hámuduruwo.
Hamu.

Mahatmayá.
Naydé.
Rāla.
Rālahámi.

FEMALES.

<i>Etaná.</i>	<i>Lama-etani.</i>
<i>Etanahámi.</i>	<i>Mahatmayó.</i>
<i>Etáni.</i>	<i>Meniké.</i>
<i>Itámi.</i>	<i>Náohchiré.</i>
<i>Háminé.</i>	* <i>Peminiten.</i>
<i>Kumárihámi.</i>	* <i>Peminitenwahansé.</i>
<i>Lamá-etana.</i>	<i>Walanwé-mahatmayo</i>

IV.—CASTES.

A'ohari.—Blacksmiths.

Badahelayó.—Potters.

Badalhu.—Gold and silversmiths.

Baddeminihá.—A respectful term for a tom-tom beater.

Batgamayó.—A term for Paduwó.

Berawáyó.—Tom-tom beaters.

Chandála.—An outcast.

Duráwe.—Chandos. Toddy-drawers.

Demala gattaru.—(From *Demala*, Tamil, and *gattaru*, captives.) A Sinhalese caste so called, supposed to be descendants of Tamil captives taken by Sinhalese kings. These people are found chiefly in the villages of Indigastuduwa, Bondupitiya, in the Pasdum Kóralé in the Western Province, Wallambagala, Galkanda in the Bentota Walalláwiti Kóralé, and Galahénkanda, and some other villages in the Gangaboda Pattu of Galle in the Southern Province.

Embettayo.—Barbers.

Gádi.—The respectful term for a Rodiyá. The name used by a Rodiyá for his caste.

Gahalayo

Gahalagambadayo } Executioners, scavengers.

Gal-addó.—Workers in precious stones, lapidaries.

Gasmandá.—A term for a Rodiya.

Gattaru.—A low caste, supposed to be descendants of captives, or condemned thieves, etc.

Guruwo.—A mixed race (or caste) of Sinhalese and Moors who profess the Mohammadan religion.

Goygama.—Vellálas, cultivators.

Halágama.—Corruptly Chalias—cinnamon peelers.

Hakuró.—Jaggery makers.

Háli.—Another term for Chalias.

Handuruwó.—Another term for Vellálas.

Hannáli.—Tailors.

Hénayó.—A term for a washer.

Hinnáwó.—Washers for Chalias.

Hangarammu.—A respectful term for Wahumpurayo. Hence applied to persons of low caste, when employed as domestic servants in the Kandyan country.

Hunnó.—Limeburners.

Karáwó.—Fishers.

Kinnaru.—Matweavers.

Kumballu.—Potters.

Kurunduhárayó.—Cinnamon peelers.

* These two terms are applied both to males and females.

- Lókuruwó*.—Brassfounders.
Mahabaddé.—Another term for *Salágama*, or *Chalias*.
Madaméminihá.—A respectful term for *Guruwó*.
Nékatiyá.—A term for a tom-tom beater, an astrologer
Olí.—A caste so called, dancers.
Paduwó.—Palanquin bearers.
Pali.—Washers for low castes.
Pallarú.—A sub-division of the above caste.
Pannayó.—Grass cutters.
Radaw.—Washers.
Ratémínihá.—A term for a *Vellála*.
Rodiyá.—An outcast.
Salágama.—Another term for *Chalias*.
Wakunpurayó.—Another term for *Jaggery makers*, signifying *cooks*, cooking being one of the occupations of this caste.
Yavammú.—Smelters of iron.

TAMIL CASTES.

- Akampadiyar*.—Those who attend to any business in the *interior* of temples and palaces.
Ampaddar (called also, *Náruvar*).—Barbers.
Andikal (called also *Paratésikal*).—Pilgrims, devotees.
Eluttukkárar.—Scribes.
Idaiyar.—Shepherds and cowherds.
Kadaiyar.—Limeburners ; chunam sellers.
Kaikkilavar.—Weavers.
Kallar.—Lit. thieves ; an inferior caste of emigrants from Tinnevely, Madura, and the South Indian Villages. They are chiefly coolies in Ceylon.
Kannár.—Brassfounders.
Káraiikkáddu Vellálar.—Vellálas from the south of Madras.
Karaiyár (called also *Mukkuvar*, *Valaiyar*, *Nulaiyar*).—Fishers.
Kochchiyár.—Emigrants from Cochin.
Kollar.—Iron-smiths.
Kómaddi.—A class of Chetties.
Kóviyar.—Slaves and descendants of slaves.
Kuravar.—Fowlers, snake catchers, and basket makers.
Kurukkal.—Non-Brahman priests from Vethárniam near Point Calymere.
Kurumpar.—Blanket weavers.
Kusavar.—Potters.
Madappali Vellálar.—A class of Vellálas, supposed to be descended from the ancient Tamil kings of Jaffna.
Malaiyálikal.—Emigrants from Travancore.
Maravar.—A class of Tamils, who are emigrants from the *Marava* country near Ramnad. These are fighting men and warriors, as the name implies.
Mudalikal.—A class of Vellálas.
Muddiyar.—Jugglers ; itinerant beggars.
Nalavar.—An out-caste, like the *Pariáhs*.
Nampári.—Brahmans from Travancore.
Nattuvar.—Dancers, trumpeters and tom-tom beaters.
Náyakkar.—Naiks, soldiers, chiefs.
Odávi (called also *Tachohan*).—Carpenter.
Oddiyar.—Those who sink wells, or make tanks ; men employed generally at earthworks.

Paddāni.—Descendants of Patans, Mussulmans.

Paddunūthkārār.—Silk-cloth makers.

Pallar.—"The name of a low and servile caste, or of an individual of that caste, most commonly the slave of the *Vellālas* or agricultural tribe; they are much upon the same footing as the *Pareyan*, but hold themselves superior to him, as they abstain from eating the flesh of the cow." (Wilson.)

Pandārānkāl.—Non-Brahman priests and devotees.

Pandāri.—A class of agriculturists.

Pāppār or *Pirāmanār*.—Brahmans.

Paraiyar.—Pariah.

Paravar.—Those who live on the sea shore—now applied exclusively to

Paravas, who are immigrants from Tuticorin.

Reddi.—A class of Telugu-speaking Tamils.

Saivar. A class of *Vellālas*, who are vegetarians.

Sakkiliyar (called also *Semmār*).—Tanners and shoemakers

Sāndār.—Toddy drawers.

Sattiriyar.—Warriors. (Kshatriya.)

Sāyakkārār.—Dyers.

Seddi.—Chetty, corresponding to *Sett* in Northern India, meaning traders, merchants, etc.

Sempadavar.—A tribe of fishers.

Sēniyar.—Weavers.

Sitpar.—Sculptors, stonecutters, and masons.

Sittirakkārār.—Painters.

Siriyaḍr.—Palanquin bearers.

Sōliya Vellālar.—*Vellālas* from the *Sōliya* country, about Tanjore and Trichinopoly.

Sōnakar (or *Tulukkar*).—Moormen.

Taddār.—Goldsmiths.

Taiyathārār (called also *Pānars*).—Tailors.

Talaikkārār.—Mahouts, elephant keepers.

Tamilār.—Ferry-men; also those who dwell on the sea shore.

Tampirān.—A class of devotees.

Tātar.—Slaves; itinerant beggars.

Tompar.—Jugglers and pole-dancers.

Tumrupar.—Those who wash the cloths of the out-castes.

Uluvar.—A class of *Vellālas* from Konkan or Travancore. (North.)

Vaishuavar.—Brahmans who are followers of Vishnu.

Valluvar.—A class of Pariahs. They are generally learned in Tamil literature, and pursue the occupation of astrologers.

Vāniyar.—Merchants, traders. There are different classes, according to the merchandise they deal in. This word corresponds to *Banian* in Northern India.

Vanuḍr.—Washers.

Vellālar.—*Vellālas*, who are sub-divided into many tribes, as this list shews.

Vēpar.—Hunters, wild men.

V.—AGRICULTURAL TERMS.

Atikāri.—A petty irrigation headman in the Eastern Province.

Agāwata.—(From *aga*, end, and *ata*, direction.) Lower side of a paddy field or range of paddy fields.

Agata.—Another term for the above.

- Amuna*.—1, A dam; 2, a measure of grain equal, in the district of Colombo, to 6 bushels. The measure varies in different parts of the Island. It consists of four *pelas*.
- Aniyam elapata*.—Is the temporary bottom of a field, *i.e.*, when a portion of land is cleared for cultivation, and when only the upper half of it is asweddumised, the bottom of the asweddumised portion is *Aniyam elapata*; when the remainder is also asweddumised the bottom of it is *pakala elapata*, and *Aniyam elapata* no longer exists.
- Aniyam panguwa*.—(From *Aniyam*, unfixed, and *panguwa*, a share or portion.) Portion of land for which there is no fixed service.
- Anekattu*.—*Anekatte*, corruptly *Anicut karn*. A dam, a dyke, an embankment, a channel to direct water into different streams for purposes of irrigation. (Wilson.)
- A'ra*.—(From the Tamil A'ru.) A stream.
- Arāwa*.—A portion of land newly asweddumised, and lying detached from the range.
- Aruppu*.—Harvest.
- Aswedduma*.—Land recently converted into a paddy field.
- Askannukumburu*.—(From *as*, aside, and *kanu* or *kon*, a corner.) Exterior fields lying towards the boundary of the range, or at a distance from the centre. Border fields, which, in remote districts, have certain privileges, light taxation, etc., in consideration of their being subject to danger from wild beasts.
- Aswanāta*.—(From *as*, aside, *wana*, jungle, and *ata*, direction. An uncultivated portion of a field bordering a jungle.
- Badawetiyā*.—A hedge bordering a field.
- Baldpura*.—A separate portion of a paddy field of small extent, cultivated for the exclusive benefit of an individual cultivator.
- Bāgé*.—A portion of a field. *Ithalabāgé*, the upper portion, *Medabāgé*, middle portion, *Pahalabāgé*, lower portion.
- Bālawi*.—(From *bāla*, young, and *wi*, paddy.) A kind of paddy sown after the expiration of the proper season, as it ripens sooner than other descriptions of paddy.
- Betma*.—A division, especially of a watercourse, into channels or branches.
- Bemma*.—The *bund* or earthen dam closing the outlet of the valley in which the water of a tank is retained.
- Bindunkada*.—A breach in the bund.
- Bisōkotuwa*.—A square shaft or well sunk through the bund of a tank to the bottom of a sluice leading from the inside of the tank to the fields outside.
- “It is probable that the well served as an entrance to the sluice for the purpose of cleaning it, removing roots, pieces of wood or other obstructions. It is true that a man might enter the sluice from the outside for that purpose, but without the well he would be in darkness: and it is only in the embankments of large tanks that the well is found. Besides, in the event of the sluice gates getting out of order, supplementary gates could be put to the sluice in the well, while they were being repaired.” (*Ceylon Almanac*, 1857.)
- Bōla-atta*.—A bundle of leaves, generally of *gurulla*, set up at a field to show that it had been appropriated by the party setting it up, and that no one had a right to enter upon it for the purpose of cultivating it. Also a broom made of leaves.
- Calvetti*.—See *Kalaivēddi*.
- Coomboore*.—See *Kumbura*.

Coomboose.—See Kumbussa.

Darānda.—Upper side of a field.

Deniyā.—A narrow valley running up between the spurs of a range of hills and cultivated with paddy. High ground, as distinguished from low or marshy ground.

Depā ela.—A water channel constructed along an embankment. An *ela* having two sides or banks which have to be kept in repair by the cultivators, as distinguished from the majority of *elas*, which have but one side or bank.

Depā vēlla.—A ridge, or bank running through fields, either as a boundary or as a path, and which the cultivators of fields lying on either side of it are bound to keep in repair.

Diyabetma.—See Betma.

Diyātara.—Lit. "having abundance of water." *Diyātara kumburu*, or fields, are those which are irrigated by means of tanks and channels and not dependent on rain, as distinguished from *malan kumburu*, which are dependent on rain for irrigation.

Diyanārāya.—(From *diya*, water, and *wāraya*, turn or season.) The turn for water, or time for each range of fields to receive water from an *ela* which irrigates different ranges of fields in rotation.

Dōra.—A field or place between rising grounds, and into which water flows during rains.

Ela.—A watercourse, a channel for carrying water from a tank or stream to the fields.

Ellā.—A rapid; also a bank.

Ela amuna.—Watercourse and its dam.

Ela-mulāta.—Upper end of an *ela*, or watercourse.

Ela-agata.—Lower end of a watercourse.

Ela-pōlla.—Portion of the *ela* assigned to each cultivator to keep in repair.

Goda-kumbura.—The highest land in a tract of fields.

Goyan.—Corn.

Goyyā.—A cultivator.

Hēna.—Corruptly, *Chēna*. High jungle ground, cultivated at intervals generally of from five to fourteen years, but in some cases at longer intervals. The jungle is cut down and burnt for manure, and the land is then sown with hill paddy, fine grain, etc.

Heranapata or *Herunpata* } A field asweddumised subsequent to the formation of the original field, and in another direction from it.

Huwandiram.—(Also spelt *Suwandiram*.) A certain share of the produce of a paddy field given to the irrigation headmen. The proportion so given varies in different parts of the Island.

Thala-elapata.—That portion of a field which is nearest to the tank which irrigates it, as distinguished from *Pahala Elapata*, *q.v.*

Inniyara.—The liminary dam or ridge of a field.

Kāḍavata.—Same as *Bindunkāḍa*, *q.v.*

Kalam.—A threshing floor.

Kalaiveddi.—A threshing floor.

Kālavellāmai.—Cultivation of grain at the proper season of the year.

Kamata.—Threshing floor.

Kanatta.—Land overgrown with low jungle.

Kandiya.—A bank or bund of a watercourse.

Kāriyākaranā.—An irrigation headman, in some parts of the Southern Province, a *Mayorat*.

Kekulama.—A description of fields cultivated without irrigation.

Kulam.—A tank.

- Kumbussa*.—A wooden pipe placed under ground through which water is conveyed from one division of a field into another.
- Kumbaha*.—Another term for the same.
- Kurulupáluwa*.—A field, the crop of which is destroyed by birds.
- Kumbura*.—A paddy field.
- Kuruniya*.—A measure of grain. Four *neli*.
- Landa*.—A land with low jungle.
- Liyedda*.—A division or bed of a field.
- Maha* or } The maha season or harvest.
Máhu }
- Mala-ela*.—(From *mala*, dead, and *ela*, a watercourse.) A watercourse which is dried up at some seasons of the year.
- Mayoral*.—*Sre* Kátiyakaranná.
- Máruvuna kumbura*.—(From *máruvenawá*, to change.) A field, the tenure of which is subject to change.
- Medakanna*.—A middle crop or harvest, between the *yala* and *maha* seasons.
- Mataku*.—Corruptly *Malawa*, a sluice (Bisókotuwa).
- Mulata*.—Upper side of a range of fields.
- Mulpata*.—A field originally asweddumised, as distinguished from *herenapata*, or *herunpata*, *q.v.*
- Munmári*.—A season in which paddy is sown before the rains set in in September and October, as distinguished from *pin mári*, *q.v.*
- Mutten*.—A kind of paddy. A middle crop between the two regular seasons of the *yala* and the *maha* harvests.
- Nansey*.—Paddy field.
- Navadili*.—The first blossom or maiden crop of any plantation.
- Niyara*.—The ridge or dam of a paddy field.
- Ovita*.—High land only cultivated by means of rain.
- Páychhal*.—Irrigating water.
- Panguwa*.—A share, a division.
- Panguweta*.—The fence to be set up for a *panguwa*, *q.v.*
- Pahala lapata*.—Is that portion of a field furthest from the tank which irrigates it, as distinguished from *Ihala lapata*, *q.v.*
- Páwara*.—Threshing floor.
- Pela*.—A watch hut.
- Péla*.—A measure of grain equal to one-and-a-half bushels.
- Pinmári*.—Latter part of the rainy season.
- Pitapára*.—An outer path or bye path.
- Pitavána*.—(And simply *wana*.) A spill-water, generally blasted out of rock or along a natural rocky channel.
- Pótáva*.—A spill-water usually in the earth bank of an *ela*. A collection of water from a bank, retained by a bund, for use below after it has passed over the upper fields.
- Pulam*.—A rice field.
- Punsey*.—Land for dry grain.
- Purai*.—A watch-hut.
- Purana*.—A field lying fallow.
- Swandiram*, see *Hucandiram*.
- Tattumáruwa*.—A field, *héna*, or other land cultivated by the joint owners in turns—thus, if a field belongs to three families, in *tattumáru* possession, each family will cultivate the whole field every third year : if it were held in common, each family would take one-third of the produce every year.
- Tawalla*.—The upper part of a tank cultivated when the water is low.
- Timba*.—Four *kurunies*.

- Upayanapata*.—Is a field originally asweddumised, as distinguished from *Herrenapata*, *q.v.*
- Vaddai Vitānai*.—Superintendent over a small tract of fields.
- Vayal*.—A rice field. In Batticaloa a division of a field.
- Vāram*.—Rent of land. The share due to the cultivator of a field.
- Varampu*.—A low ridge in a tilled piece of ground. A boundary.
- Vārakkudi*.—A cultivator of the soil.
- Vāykkāl*.—Watercourse.
- Vedduwāy*.—Corresponds to the Sinhalese term *wakkada*, *q.v.*
- Vēli*.—A field.
- Vēli*.—A fence.
- Vēli A'rāchchi*.—An agricultural officer.
- Wakkada*.—A gap or cut made in a bund for letting water into the fields.
- W'akaturé*.—A field circular in shape.
- Wela*.—A tract of fields.
- Welwidāné*.—An irrigation headman.
- Wēldēwāyā*.—An irrigation headman of a low caste.
- Wēlduwayā*.—An irrigation headman of a low caste.
- Wēlla*.—The embankment along the line of an ela.
- Wila*.—A swamp or field, the higher parts only of which can be cultivated. A small pond.
- Yāya*.—A tract of paddy fields.
- Yala*.—The *yala* harvest.
- Yala*.—A score, 20 *amunams* extent, or 20 *amunams* of grain, or 20 head of cattle. (Armour.)
- Yelamuna*.—One and a-half *amunams* and six *pēlas*.

VI.—TENURES OF LAND.

- Anda* } (From *ada*, half.) The half, or half-share. A share. "*Anda*
Andé } land is that which is delivered by the proprietor to another
to cultivate on condition of delivering to him half the crop as rent.
This is the usual condition on which fertile lands are annually let."
(D'Oyly.) The term is now applied to other shares than half, given
by the cultivator of a field to its proprietor. Thus, *tunen-anda* is
one-third share, *hataren-anda*, one-fourth, and so forth. One-half
is sometimes called *hari-anda* (from *hari*, equal, and *ada*), to
distinguish it from other shares.
- Andé-muttettu*.—(From *ande* and *muttettu*.) Those *muttettu* lands
which are cultivated on the condition of giving half the crop to the
proprietor, as distinguished from *ninda-muttettu*, *q.v.*
- Anda-pravēni*.—(Corruptly *Anda paravēny*.) "Signifies lands originally
the property of Government abounding with jungle which have
been cleared and cultivated by individuals without permission.
One-seventh part of the produce of these lands (in the first place) is
given as *wālahan*, and then the seed corn is deducted; after which
one-half of the remaining produce is appropriated to Government
and the other by the Goyyās. The cultivators or the persons who
converted them into fields are entitled to one-half the soil of this
description of land, which they may either sell or mortgage, and
which is heritable. (*Ceylon Almanac*, 1819.)
- Badamedūla*.—Land granted by Government to certain individuals in
consideration of offices held, or services rendered by them.
- Bandara watu*.—(From *bāndāra*, or more correctly, *bhāndāgāra*, a

storeroom, a treasury, and *watu*, gardens), gardens belonging to the Royal store, or treasury, *i.e.*, gardens belonging to Government. Most of them were planted by the Dutch Government. The whole of their produce was annually rented by Government for its own benefit, but in a few instances, some of these gardens were planted by individuals who possess the planting share of the trees only, in such proportion as the nature of the soil will admit; *i.e.*, those gardens on the coast pay annually to Government two-thirds of the produce of the trees (chiefly coconut trees), and the remaining one-third or planting share is enjoyed by the planter, and those gardens situated in the interior pay half to Government." (*Ceylon Almanac*, 1819.)

Bandāriya.—The designation by which the one-fifth share paid to Government by the holders of paddy fields in the *Batgam* is known.

Batgam.—Corruptly *Bajjams*. (From *bat*, rice, and *gama*, a village, lit. a *rice village*.) There are four villages known as the "four batgams" or "bajjams" in the Gangabadapattu of Mátara. They were originally given to certain families on condition of service, but when that service was no longer exacted, the holders or occupants (called *Naydés*) of these lands, were required to give up to the State one-fifth of the produce of their fields, which one-fifth part is designated *bandāriya*, and belongs absolutely to the Crown. (Cairns.)

Déwala gama.—(From *Déwtilé*, a Hindu temple, and *gama*, a village.) A village or land belonging to a *Déwale* or temple of some heathen deity.

Diwel.—(From the root *diwa*, to live.) Lands granted to individuals for their maintenance in consideration of certain services rendered, or offices held, by them.

Gabadá gama.—(From *gabadá*, a store, and *gama*, a village.) A royal village.

Gama.—A village. "The Sinhalese word, *gama*, properly signifies a village, but in the Kandyan country it is also frequently applied to a single estate or a single field. The latter is often called *panguwa*, or share. (D'Oyly.)

Gallat gama.—A species of village much in the nature of a *ninda* village and sometimes bearing that name." (D'Oyly.)

Kanwispravéni.—"These were originally forests or jungles of large extent, cut down and cleared by individuals, which they sowed once every seven or eight years. These lands were free from all tax under the Dutch Government, but since the present Government took possession, they are subjected to pay one-tenth of their produce, and the remaining nine-tenths are divided between the *Goyyás* and the persons who originally cleared them, or their heirs." (*Ceylon Almanac*, 1819.)

Malapálu } (From *mala*, dead, and *pálu*, deserted, or voided by
Malapalá } death.) Lands originally held by private persons which have reverted to the Crown, through failure of other heirs. In the district of Mátara, all produce grown on such lands pay half to Government. Previous to division between the cultivators and Government as lord of the soil, one-seventh is invariably deducted as compensation to the reapers and threshers, under the designation of *wálahan*, the cultivator being put to the additional expense of providing at his sole cost the seed corn, on which he is charged interest in kind at the rate of 50 per cent. It some-

times happens that the Government abates its claim to the half where the soil is poor and difficult to work. In such cases one-third or one-fifth is levied, and the residue left to the cultivator. (Cairns.)

Muttettu.—"A field which is sown on account of the king or other proprietor, temporary grantee, or chief of a village, as distinguished from the fields of the other inhabitants of the village who are liable to perform services or render dues." (D'Oyly. Cf. *andémuttettu* and *nindamuttettu*.)

*Malapalā diwel**.—Are *malapalā* lands, wholly belonging to and remaining in the possession of Government, but conditionally and temporarily granted for cultivation to certain classes of petty headmen, as a remuneration for their services in connection with the husbandry of their district, and occasionally for other service. One-fourth of the produce of lands of this tenure is given to Government, but its right over the whole soil, and to provide for its occupation, is undoubted and absolute. As regards *gardens* of this tenure, the Government is entitled to one-fourth or one-fifth of the produce. (Cairns.)

Māruwena panguwa.—(From *māruwena*, changing, and *panguwa*, a share.) A land held by a tenant-at-will, as distinguished from *pravēni panguwa*, *q.v.*

Nilakārayā.—A tenant. A tenant-at-will, as distinguished from *Pangukārayā*, *q.v.*

Nilapālū { From *nila* and *pālū*). "Are lands formerly held *ex-officio*
Nilapalā { under Government, but which from failure of male heirs, or because the office itself may have been discontinued, are again in direct possession of the Crown. There is no other distinction than the name and its origin between these and *malapalā* lands. (Cairns.)

Nilapanguwa.—(From *nila* and *panguwa*.) "Is the land possessed on condition of cultivating the *muttettu*, or performing other menial service, or both, for the proprietor, grantee, or chief of a village. The possessor of such land is called *Nilakārayā*. In some instances he is the proprietor, and cannot be displaced so long as he performs the service; in others, a tenant-at-will, and removable at pleasure." (D'Oyly.)

Nindagama.—(From *ninda*, exclusive possession, and *gama*, a village.) "A village which, for the time being, is the entire property of the grantee, or temporary chief; if definitively granted by the king, with *Sannas*, it becomes *paraveny*." (D'Oyly.)

Ninda muttettu.—Is a *muttettu* land sown entirely gratuitously for the benefit of the proprietor, grantee, or chief, by other persons, in consideration of the lands which they possess" (as distinguished from *and amuttettu*, *q.v.*). (D'Oyly.)

* All the Governments—both European and Native—which preceded the British in Ceylon, generally paid all native office-holders,—not in money, but by a grant of land to be cultivated by the office-holder by way of remuneration for his services, and to be held by him so long as he continued in office. When compulsory services were abolished and the Government ceased to exact the services formerly rendered by the holders, *virtue officii*, of *malapalā diwel* and other lands, the right of the Crown to the absolute ownership of these lands appears to have been overlooked—and they consequently are now held free of service, on the favourable terms originally granted in consideration of certain services to be rendered without other payment by the holders.

Otu.—Tithe. One tenth of the produce.*

Pidawilla.—Land offered by individuals to temples, private dedications, or endowments.

Piyadi.—"A tax of three-eighths of a pice for every ten coconut trees and the same for three jack trees bearing fruit, levied by the Dutch Government from gardens of a certain description." (*Ceylon Almanac*, 1819.)

Pangura.—A share. An estate, a field.

Pangkārāyā.—The holder of a *Pangura*. This term is confined to Praveṇi holders. See also Praveṇi Nilakārāyā.

Praveṇi.—(Corruptly *paraveny* or *parveny*.) "Parveny land is that which is the private property of an individual proprietor, land long possessed by his family, but so called also, if recently acquired in fee simple." (D'Oyly.)

Praveṇi Andē.—*v. Anda praveṇi*.

Praveṇi nilakārāyā.—The proprietor of a heritable *pangu* in a *ninda* village, who cannot be displaced by the superior lord so long as he performs the service in consideration of which the *pangu* is held. The same as *Pangkārāyā*.

Praveṇi pangura.—The *pangu* held by a *praveṇi nilakārāyā*, *q.v.*

Praveṇi diwel.—(From *praveṇi* and *diwel*.) Diwel lands which have become private property. One-fifth of the produce of these lands is given to Government.

Purappādu.—Land vacant or without owner. A land becomes *purappādu* either in failure of heirs, or by abandonment.

Ratmahera { "Signifies what of right belongs to the Crown. It is a term used to describe all waste and uncultivated lands to which no private title can be shown, and includes all Government forests, hénas, etc. It never applies to paddy fields, except in cases where by unauthorised appropriation of such Government lands, portions may have been worked or improved into a condition suitable for grain cultivation. The tax on such fields and gardens, where the claim of the appropriator is admitted on the ground of long possession, is one-tenth of the produce (in the case of the gardens, it is asserted by some authorities, and denied by others, that Government can claim one-tenth of the *soil* as well as the *produce*). There are, however, in the maritime districts, *Ratmahera* lands granted by the Dutch to private individuals, on condition of their conversion into fields and gardens, the produce to be taxed at one-tenth." (Cairns.)

* Sir John D'Oyly gives the following explanation of the term. "*Otu* is of three kinds:—

"1st. A portion of the crop equal to the extent sown, or to one-and-a-half, or double the extent sown, in some *paddy fields* or *chenas*. It is the usual share paid to the proprietor by the cultivator from fields which are barren or difficult of protection from wild animals, particularly in the Seven Korlés, Sabaragamuvā, Héwāheta, and some *chenas* in Hārispattu. In many royal villages in the Seven Korlés are lands paying *Otu* to the Crown.

"2nd. The share of one-third paid from a field of tolerable fertility, or from a good *chena* sown with *paddy*.

"3rd. The share which the proprietor of a *chena*, sown by another with fine grain, cuts first from the ripe crop, being one large basket full, or a man's burden." (Sir J. D'Oyly, "Transactions of the Royal Asiatic Society," Vol. III., 1831.)

Ratpinda.—"Lands cultivated by Government, whose sole property they are."

Wālahan.—One-seventh of the produce of a paddy field given to those who are employed in reaping and threshing the corn.

Wēdanasan.—Service praveṇi lands.

Wihāragama.—(From *wihāra* and *gama*, a village.) A village or land belonging to a Buddhist temple.

VII.—MISCELLANEOUS.

Adukku.—Dressed provisions supplied to an officer travelling on duty, as distinguished from *Pchidum*, raw provisions, &c.

Agas.—First fruit of a crop. Offering of first-fruits.

Almāra or *Almāri*.—(Port Ulmaria.) A cabinet, a wardrobe, a cupboard, or chest of drawers. (Wilson.)

A'na.—H. Skt. *A'na*, the sixteenth part of a rupee, commonly but incorrectly written *Anna*. (Wilson.)

Angama.—A magical ceremony performed to inflict an injury on some one.

Angarkhā.—H. A long tunic, a coat worn both by the Hindus and Mohammedans: the former tie it on the left, the latter on the right breast. (Wilson.)

Angula.—A double canoe.

Amṇi.—" (Corruptly *Umanee*, *Umanee*, *Aumany*, *Amauny*.) Held in trust or deposit; applied especially to the collection of the revenue direct from the cultivators by the officers of Government, upon the removal or suspension of an intermediate claimant or Zemindar." (Wilson.)

Ambalama.—A Native resthouse, from the Tamil.

A'rak, *U'rak*.—Arabic, spirit, juice, essence. (Wilson.)

Araku, or *Aruki*.—A fermented liquor from the juice of the Palm. *Tari*, or *Arrack*, which is probably derived from the Tamil, which again may be a dialectical modification of the Arabic *A'rak* as above. (Wilson.) Sinhalese, *Arakku*.

Aramana.—Name of a country. Arakan? A disease so named, of the nature of leprosy, or sores considered incurable.

Aviññānaka.—Inanimate. *Aviññānakavastuwa*, inanimate property, such as chattels, etc., etc.

Awrudu mangallé.—The festival of the New Year—generally celebrated on April 11th.

Asgiriya.—The College of Buddhist priests at Asgiriya, Kandy.

Atuwa.—A granary.

Atucāwa.—A commentary.

Atthakathā.—The Pāli form of the above.

Babu, *Baboo*.—Beng., etc. A title of respect, attached to a name, as "Mr." or "Esq." In Bengal, it has lost something of its respectability, and is commonly given to natives who manage the pecuniary concerns of the English, and to native clerks who write English. (Wilson.)

Bahirawa.—A class of demons so named.

Bali.—An offering. Offerings to propitiate the planets.

Balana panguwa.—The share of the produce of a garden given to the occupant by the owner for taking care of it.

Bambu or *Bambu*, *Bunboo*, *Bumboo*, *Karu*.—A Bambu. (*Arundo Bambusa*.) (Wilson.)

Bandārawāhiya.—Certain noble families in the Kandyan country.

- Bande, Bunde*.—*Tel.* A fine for trespass by cattle. (Wilson.) (The Sinhalese word *wandiya*, fine, or payment of compensation, is evidently of the same origin.)
- Bāṅglā*.—Corruptly *Bungalow*, probably from *Banga*, Bengal, a thatched cottage, such as is usually occupied by Europeans in the provinces, or in military cantonments. (Wilson.)
- Batali*.—A smaller kind of bambu, *cane bambu* (*Bambusa stridula*).
- Bāzār*.—*H.* In the dialects which have not a *z*, *Bājār*, a market, a daily market, a market place. (Wilson.)
- Bhata, Bhutu*, or *Bhātā*.—Incorrectly *Batta, Bhatta*. *H.* Additional allowance. Extra pay or allowances to public servants or soldiers. Subsistence money, or additional allowances to officers employed on special duties or in distant places. (Wilson.)
- Bathawdpunama*.—Name given when a child is first fed with rice.
- Binna*.—Corruptly *Beena*. "That species of marriage among the Kandyans where the husband is received into the house of the bride, and abides therein permanently." *Vide Diga*.
- Hhang, Bhāng*.—Corruptly *Bang*. An intoxicating preparation of hemp. (Wilson.)
- Brāhman, Brahmun*.—Dialectically, *Bahman* or *Bohman*, or in Tamil *Pārappan* or *Pirramanan*. Corruptly, *Braman, Bramin*, etc.—*Skt. Brāhmana*. A man of the first order or caste of Hindus, properly charged with the duty of expounding the Vedas, and conducting the ceremonies they enjoin—in modern times engaged not only in such duties but in most of the occupations of secular life. (Wilson.)
- Bubula*.—A spring of water, often used for purposes of irrigation.
- Bulatsurulla*.—A fee of a few *ridis* given by a complainant to the headman. *Lit. a bundle of betel leaves*, inside which the money is generally placed.
- Camboy*.—See *Kambāya*.
- Canjie*.—See *Kañchi*.
- Calpawraksha*.—See *Kalpavriksha*.
- Calpa*.—See *Kalpa*.
- Candy*.—See *Khāndi*.
- Chakravarti*.—An universal monarch.
- Chāmara*.—The bushy tail of the Tibetan ox set in a bundle and used to drive away flies. (Wilson.)
- Chank, Chunh*, or more correctly *Sankh, II.*—*Skt. Sankha*, a conch shell. When entire with the greater end cut off, it is used as a kind of horn, formerly blown in war, but now at the worship of idols. Cut in segments of circles, it forms ornaments for the forearms and wrists of women. The chief supply of these shells is from Ceylon, and when the volutes turn to the right, the shell is held in peculiar estimation. (Wilson.)
- Chūnā, H.* *Skt. Chūrna, Chunnam*, whence the current word *Chunam*, Lime. (Wilson.)
- Chāya*.—A root from which a red dye is extracted. (*Oldenlandia umbellata*). (Wilson.)
- Chekku*.—A native oil-mill.
- Chitti* or *Chetti*.—*Tel.* More correctly *Sethi*, corruptly, *Chitty*, from *Skt. Sreshthi*. All members of the trading castes in the Madras Provinces. (Wilson.)
- Chāvati*, or *Chauti*.—*Mal.* Corruptly, *Choltry*, or *Choultry*. A public lodging place, a shelter for travellers. (Wilson.)
- Cooly*.—See *Kūli*.

Cutcherry.—See *Kachchéri*.

Damba diva.—Elu form of *Jambudwipa*, *q.v.*

Dafā-dār.—"Corruptly, *Duffadar*, etc. In the Hindu dialects which have *no f*, the *ph* is substituted, as *Daphedar*, etc. Commandant of a body of horse, head of a party of police, a police officer. In Bengal, a person at the head of a number of persons, whether labourers or soldiers." (Wilson.)

Dāsayā.—A slave.

Dehikepuma.—The cutting of lime fruits, a magical ceremony to drive away the demons.

Dekum.—Presents.

Diga.—Corruptly, *Deega*. A species of marriage among the Kandyans, wherein a woman is given away to live permanently with her husband. *Vide Binna*.

Disāvanē.—Corruptly, *Dessavony*. The province of a *Disāwa*.

Dhōbi.—H. corruptly, *Dhoby*. (Wilson.)

Dhoni.—A boat. Tamil *tōni*. Corruptly, *Dhony*.

Elu.—Sinhalese.

E'danda.—A log of wood placed across a stream as a bridge—from *hé*, corrupted into *é*, and, *danda*, a stick, a log of wood.

Ela.—A canal.

Ebittayā.—A servant attending a Buddhist priest.

Eskuli.—A fee paid to a person for finding a lost article; from *es* eye, and *kuli*, hire.

Ewaha.—Evil eye.

Gabadāwa.—A store.

Gāla.—An enclosure for cattle. A kraal.

Gala.—A stone, a rock. } Common terminations of names of places.

Galla.—A stony place. }

Gamsabē.—A village council.

Gamwasam.—Belonging to a village.

Gawwa.—Corruptly a *Gow*, a measure of distance about four English miles.

Gedaranama }
Génama } House name. Family name.

Ghāt.—"Corruptly *Ghaut*, or *Gaut*. H. A landing place, steps on the bank of a river, a quay, a wharf where customs are commonly levied. A pass through the mountains; the mountains themselves, especially applied to the eastern and western ranges of the South of India, etc. (Wilson.)

Godown.—"Beng. *Gudām* (from the Malay *Gadang*). An outhouse, a warehouse, a place where household implements or goods are kept. The "Black Hole" was nothing else than *ago down*. (Wilson.) S. *gudama*.

Grantha.—A book, a metro, or measure. The *grantha* alphabet, used in the south of India in writing Sanskrit.

Gurunnānā.—A teacher.

Gurunnāhē.—A term of respect in addressing a tom-tom beater.

Hakeri.—Commonly *Hackery*, (?) a native cart drawn by bullocks. (The word, although in common use, is neither *Hindi* nor *Bengali*. It may be a corruption of the Portuguese *carro* or *acarreta*, to carry.) (Wilson.)

Halpatu.—The bark of the *Hal* tree (*Vateria Indica*, Lin.) used by the sweet-toddy drawers to prevent the toddy from fermenting.

Handiram.—A kind of paddy.

Hēwapannē.—Soldiers.

Hewawasam.—Belonging to the military class.

Hetepma.—More correctly, *Setepma*, corruptly, *hetekma*, resting-place.

A distance supposed to be equal to an English mile.

Hi lékammitiya.—Registers or records of the kings of Kandy.

Hüwa.—A peculiar call used by the Sinhalese, and thence applied to the distance at which a loud shout can be heard.

Hüniyama.—A magical incantation to injure a human being.

Hüniyam kepuma.—A ceremony used to ward off the effects of a *hüniyama*.

Ittanharanawa.—To emancipate a slave.

Ittan keré.—From *ittan*, act of emancipating, and *kerá*, a deed. A deed of emancipation.

Jamáddár Jamáddár.—"Corruptly, *Jemidar*, less usually, but allowably, *Jemátdár*, H. The chief or leader of any number of persons. In military language a native subaltern officer, second to the Subah-dár. (Wilson.)

Jambudwipaya.—The *terra cognita* of the Buddhists, also the continent of India.

Jungal, Jangul.—"Commonly, *Jungle*, Skt., *Jangalan*, a forest, or thicket, any tract overrun with bushes or trees." (Wilson.)

Játaka urumé.—The right of inheritance by the father's side, from *Játaka*, birth, and *urumé*, right, inheritance.

Kabara tel.—A poison extracted from the *Kabaragoyá*, the large sort of iguana.

Kachchéri.—*Kachahri*, *Kuchuhree*, corruptly, *Cutcherry*, H. *mur. Kacheri*, or *Kachhari*, Beng., *Kachelí*, Tel., a court, a hall, an office, the place where any public business is transacted. (Wilson.)

Kadarata.—A barrier, a boundary; *Kadawat-hatara*, the four gravets or boundaries on the four sides of Colombo, and certain other towns.

Kada.—A load suspended from the two ends of a pole.

Kadjan, Cudjan.—A term used by Europeans for the leaves of the fan-palm, or coconut, on which the natives write with an iron style. The letters are sometimes, but not always, blackened with ink. The word is supposed to be of Portuguese origin, but this seems doubtful. (Wilson.) In Ceylon, this term is applied to the plaited leaves of the coconut tree only. The leaves of the palmyra and talipot trees only are employed for writing purposes.

Káfir, A.—An infidel, one who does not believe in the mission of Mohammad. (Wilson.)

Kahawanu.—An ancient gold coin. P. *Kahápana*, Skt. *Karshápana*.

Kalanda.—An apothecary's and jeweller's weight, equal to 1-6th of an oz., Avoirdupois weight. T. *Kalañchu*.

Kalpa.—"A day and night of Brahmá, a period of 4,320,000,000 solar-sidereal years, or years of mortals, measuring the duration of the world, and as many, the interval of its annihilation."—(Wilson.) According to the Buddhist authorities, *Kappó* is "the term of the duration of the world in each of its *regenerations* or *re-creations*, derived from *Kappiyati pabbata sásapómádhiti*, "the comparison of a grain of mustard with a mountain," as illustrating the undefinable duration of a *Kappo*, in reference to the number of mustard seeds which would be contained in a mass of matter to form a mountain one *yójana* in height." (Turnour.)

Kalpa vriksha.—One of the fabulous trees of Indra's heaven; a tree which yields whatever may be desired, *e, kalpa*, purpose, and *vriksha*, a tree. (Wilson.)

Kálinga.—The ancient name of a country in India, now, Northern

Circars. Wijaya, the founder of the Sinhalese monarchy, was descended from the kings of *Kālinga*, and *Wang* (Bengal). Many kings of the *Kālinga* royal family reigned in Ceylon. This country is mentioned by Pliny, as "*Calingæ proximi mari*"; and "*Gentes gangaridum Calingarum*."

Kaliyuga.—The iron age of the Hindus.

Kambāya.—A cloth worn by the natives of Ceylon.

Kānchi.—Corruptly, *Conjee*, or *Conje*. Rice water in general, although it properly denotes rice water which has been converted into an acid beverage by acetous fermentation. (Wilson.)

Kapuvā } A priest who officiates in a *Dēwālē*.
Kapurālā }

Kachchā.—*Kuchcha*, incorrectly, *Kacha*, or *Kucha*, and corruptly. *Catcha*, *Kutchā*. H. Raw, unripe, immature, crude, *lit.* or *fig.*; as a *Kachchā* house is one built of unbaked brick, or mud; a *Kachchā* person is one inexperienced, unskilful, silly; as applied to weights and measures, it denotes inferiority. A *Kachchā sér* is one less than the standard *sér*." (Wilson.) The contrast in all respects of *Pakkā*, *q. r.*

Kārtika mangallē.—A Kandyan festival in honour of the gods, celebrated generally on the night of the full moon in the month of *Kārtika* (December).

Kūru.—Corruptly, *Cash*, *Tel.* *Karn*. A small copper coin, current at Madras, made equal in 1832 to the Calcutta and Madras *paisa*, and rated at 64 to the rupee: it was formerly rated at 80 to a fanam, a small silver coin: it also means, in Tamil, coin, money in general. It formerly denoted a coin of a certain value, supposed by Mr. Ellis to have been the same as the Skt. *Karsha* and equal to the double silver fanam of Madras. (Wilson.) *Kāsi* in Sinhalese means coin or money in general.

Katubulle.—A class of messengers under the Kandyan Government.

Kattādiya.—A devil dancer. An inferior officer in the Kandyan country.

Kattumaram.—A raft. See *Treppan*.

Katawaha.—Evil mouth, corresponding to evil eye, and supposed to have a similar evil influence.

Kayaru, or *Kayiru*.—Rope, whence the term *Coir*, though that is usually applied to rope made of the fibres of the coconut alone. (Wilson.)

Kvlē.—Jungle.

Kerē.—A document or deed.

Kist.—H. Vernacularly modified as *Kisti*, *Beng.* *Khist*, *Mar.* *Kisti*, *Tel.* *Kisti* or *Kistu*, *Karn.* Instalment, portion; the amount paid as an instalment; the period fixed for its payments: as a revenue term, it denotes the portion of the annual assessment to be paid at specified periods in the course of the year. (Wilson.)

Kilē.—Pollution—pollution contracted by going to a house in which a dead corpse lies, etc., etc.

Khandi.—Incorrectly, *Kundee*, *Mar.* *Khandi*, from Skt. *Khanda*. A measure of weight and capacity commonly termed *Candy* (from the Tamil spelling *Kandi*); its value varies in different places: at Bombay it consists of twenty Bombay maunds, or, for particular substances, of only eight maunds; at Poona, it is of twenty Poona maunds, and varies therefore with the weight of the maund.

* * * * *

The latest statements made the Madras *Khandi* of 20 maunds,

- 500 lb., the Bombay Khandi of 20 maunds, 560 lb., the Surat of 20 maunds, 746·666 lb., and the Travancore of 20 maunds, 640 lb. The number of maunds varies, however, and with it, of course, the value of the Khandi.—(Wilson.)
- Kondé*.—A chignon. The bunch or knot in which the Sinhalese (both men and women) tie up their hair.
- Kóralé*.—A division of the country, or district.
- Kówila*.—A Hindu temple.
- Kror*, or *Karor*.—Commonly written *Cróre*, H. Skt, *Kóti*, ten millions, or hundred *lakhs*, or hundred thousands. (Wilson.)
- Kshatriya*, *Skt.*—The name of the second or military and regal caste, or a member of it, the warrior, the king. (Wilson.)
- . According to the Buddhist Páli authorities, the Kshatriyas form the first order or caste, and the Brahmans the second.
- Kúli*.—" *Cholie*. Daily hire or wages: a day labourer, a cooly. The word is originally Tamil, whence it has spread into the other languages." (Wilson.)
- Kuppáyama*.—A Rodiya village. Habitation of a Rodiya.
- Kurán*.—Commonly, but incorrectly, *Koran*, and *Coran*.—A. The sacred book of the Mohammadans, the supposed revelations made to Mohammad, and delivered by him orally, collected and committed to writing by the Khalif OMAR. (Wilson.)
- Kúnammaduwa*.—The establishment of palanquin bearers of the kings of Kandy.
- Kúruwa*.—The elephant Department.
- Láha*.—A measure of quantity, about 4 *neli*, or quarts.
- Laksha*.—Skt., but current in all dialects, sometimes modified as *Lak*, or more commonly *Lákh*, or in compounds *Lakh*. A hundred thousand, or *Lac*, or *Lákh*, commonly, though not exclusively, applied to coin, as, a *Lákh* of rupees, 100,000 rupees; or at 2s. the rupee, £10,000.—(Wilson.)
- Lanka*.—A name of Ceylon. The oldest name of Ceylon in the literature connected with the religion of Gotamo Buddhó, and derived from its beauty and perfection. (Turnour.)
- Lena*.—A cave. A cave temple.
- Léwáya*.—Salt pans.
- Linga*.—Skt. Adopted in all the dialects. A mark, a characteristic sign; the distinguishing mark of gender or sex; the male organ: the phallus, as the type of Siva, and as worshipped in all parts of India. It is usually of stone or marble, and is set up in temples especially appropriated to the worship of Siva, or Mahádéwa under this form. (Wilson.)
- Madaran*.—A fine paid by a cultivator to a proprietor of land for cultivation. (Armour.)
- Madigé*.—The bullock or carriage department of the kings of Kandy.
- Má*.—Great. The Elu form of *maha*, great, used chiefly in combination; e.g., *Má oya*, *Má weliganga*, the great sandy river.
- Magula*.—A wedding. An auspicious event.
- Magulpóruwa*.—(From *magul*, auspicious, and *póruwa*, a board.) A board or platform on which the bride and bridegroom are made to stand while the marriage ceremony is being performed.
- Magadha*.—A country, South Behar. The language of *Magadha*, another term for *Pali*, *q. v.*
- Maha nadiwa*.—The great Court under the Kandyan Government.
- Malwatta*.—The Buddhist college or establishment of *Malwatta* at Kandy.

Māligāwa.—A palace.

Manvetti.—A hoe. Corruptly, *mamoty*.

Man, *Mun*.—Commonly *Maund*, H. etc., *Mana*, from the A. *Mann*; (Hebrew, *Mann*) *Mahana*, Uriya, *Mannu*, Tel.—A measure of weight of general use in India, but varying in value in different places. Four principal varieties are specified by Mr. Prinsep; 1, the Bengal *Maund*, containing 40 *seers*; 2, the *Maund* of Central India, consisting of half of the quantity, or 20 *seers*; 3, the *Maund* of Guzerat, consisting of 40 *seers*, but of lesser value, making the Bombay *maund* 28lb. avoirdupois; and 4, the *maund* of Southern India, fixed by the Madras Government at 25lb. (Wilson.)

Mangallé.—A festival.

Mandapa.—A shed or hall erected on festival occasions and adorned with flowers, etc. An open temple.

Manu niti.—The laws of Manu or Menu. The oldest code of Hindu laws.

Mantra.—A prayer, a prayer of the Veda, a mystical or magical formula, the prayers or incantations of the Tantras, counsel, advice. (Wilson.)

Māppillā, plu. *Māppillamār*.—(Commonly, *Moplah* or *Moplay*.) A native of Malabar, a descendant of the Arabs, who settled in Malabar, lit. the son (*pilla*) of his mother (*mā*), as sprung from the intercourse of foreign colonists, who were persons unknown, with Malabar women: the term is also applied to the descendants of the Nestorian Christians, but is in that case usually distinguished by the prefix *Nasrāni*, while *Jōnakan*, from *yāwana*, is prefixed to the Mohammadan *Māppillas*. (Wilson.)

Marakkāl.—(Commonly, *Markal*, or *Mercal*, Tam.) A grain measure in use at Madras, containing 8 *padis* or *measures*, and one-twelfth of a *kalam*: it formerly consisted of 750 cubic inches, but is now fixed at 800 cubic inches: 400 *marakkāls* = 1 *garisa* or *garce*. A *marakkāl* of rice or of salt weighs 960 rupees = 12 *seers* or 24lb. 6 oz. Prinsep calls the *markāl* = 27 lb. 2 oz. 2 dr. of water, or nearly 2½ imperial gallons; but the standard, as since fixed (20th October, 1846) makes the *marakkāl* as above = 28 lb. 12 oz. 13 dr. 22 gr., or in measure 2 $\frac{1}{16}$ the imperial gallon." (Wilson.)

Masūla.—Commonly, *Mussoola* (of doubtful origin). A kind of boat for crossing the surf on the Madras coast; it is usually from 30 to 40 feet long by 6 broad and 8 deep, flat bottomed, and having the planks sewn together with withes of straw between each plank; it has ten rowers, and can carry twenty passengers. (Wilson.)

Maulānā.—H. and A. The title of a person of learning or respectability, teacher, doctor; in the Maratha countries, the usual designation of the Mohammadan village schoolmaster. (Wilson.)

Maw urumé.—Inheritance by right of the mother.

Máyā.—An ancient division of Ceylon.

Mudali.—A rank or title conferred by the kings of Kandy.

Mudalipéruwa.—A titled class. The class of persons holding the rank of *Mudali*.

Mufassal.—Corruptly, *Mofussil*, H. etc. Properly, separate, distinct, particular: in Hindustan, a subordinate or separate district, the country, the provinces, or the stations in the country, as opposed to the *Sadar*, or principal station or town. (Wilson.)

Muharram.—Corruptly, *Mohurram*. H. A. Sacred, unlawful, prohibited: the first month of the Mohammadan year, in which it was held unlawful to make war. Among the Shias this month is held in

peculiar veneration, as being the month in which *Hasan* and *Hasain*, the sons of Ali, were killed : their deaths are the subject of public mourning during the first ten days, when fasting and self-denial are also enjoined. (Wilson.)

Muhar or *Muhr*.—Corruptly, *Mohur*, H. and P. A seal, a seal ring. A gold coin of the value, in account, of sixteen rupees. (Wilson.)

Mūkālāna.—A forest.

Milagatannir.—Pepper broth or pungent soup. Corruptly, *Mulgatanni*, *Mullagatanny*.

Munsif.—Corruptly, *Moonsiff*, H. Equitable, just, a decider of what is just : an arbitrator or judge : applied under the British Government to a native civil judge of the first or lowest rank, etc., etc. (Wilson.)

Nāga.—"Vernacularly, *Nag*. Skt. *Nāga*. A snake. a serpent deity, or a class of snake gods inhabiting *Pātāla*, the regions under the earth." (Wilson.)

Nāgari.—H., etc. (fem. of *Nāgara*). Relating to a town or city ; applied especially to the alphabet of the Sanskrit language, sometimes with *Dēva*, divine, prefixed as *Dēvanāgari*. (Wilson.)

Nākhudā.—Corruptly, *Nakouda*, *Nacodah*, H. The captain or commander of a ship. (Wilson.)

Nawāb.—"Corruptly, *Nuwaub* and *Nabob*, H. etc. *Plu.* of *Nāib*, but used honorifically in the singular. A Viceroy or Governor of a province under the Moghul Government, whence it becomes a mere title of any man of high rank, upon whom it was conferred without any office being attached to it." (Wilson.)

Nāyaka.—Skt. Vernacularly. *Nāik* or *Naek*, Tamil, a leader, a chief in general, also the head of a small body of soldiers. In the Anglo-Indian army, a corporal. (Wilson.)

In Sinhalese, the term *Nāyaka* is applied to a leader in general, and particularly to a Buddhist Chief Priest.

Naya.—A debt.

Naya turaha.—A debt, or debts.

Nāyudu.—"Commonly written *Naidu*, or *Naidoo*. *Telugu*. A title added to the names of respectable persons among the low or Śūdra castes. (Wilson.)

This is probably the origin of the Sinhalese term *Nayidé*, applied as a term of respect to a man of inferior castes.

Nekata.—A star. A constellation.

Nētra pinkama.—The festival of painting the eyes of an image of Buddha when first made.

Nighandu.—A vocabulary.

Nilamé.—An officer.

Vilé.—An office ; service.

Nischaladé.—Immovable property.

O'lai.—Corruptly, *Ool*, *Olly*, *Ola*. The leaf of any kind of palm, especially, though not exclusively, applied to the leaf as used for writing upon. (Wilson.)

Oya.—A small river.

Pādi.—Vulgarly, *paddy*, Malay, *Pādi*. Rice in the husk. (Wilson.)

Pādē.—A Pāda boat. A flat-bottomed boat.

Paisā.—Corruptly, *Pysa*, *Pyce*, *Pice*, H., etc., *Mar. Paisā*. A copper coin which, under the Native Government, varied considerably in weight and value. The Company's *paisā* is fixed at the weight of 100 grains, and is rated at 4 to the *āna* or 64 to the rupee. In common parlance, it is sometimes used for money in general. (Wilson.)

Pakkā, Pukka.—Corruptly, *Pucka, Pukka*. Ripe, mature, cooked, dressed : metaph., correct, complete, as a statement : substantial, solid as a building ; also intellectually mature, intelligent, sharp, knowing ; the contrast in all respects of *Kacchā, q.v.* (Wilson.)

Paḍḍa.—A division of a country. A district.

Pāli.—The language in which the Scriptures of Buddhism are written in Ceylon, Burma, Siam, and other countries. The language of *Magadhā, q.v.*

Palli.—A small town, a village ; in Tamil, also a temple, a school : it is no doubt the same word as the H. and *Beng.* terms, but is in more general use, especially in combination, when it is corruptly written *poly*, as in *Trichinopoly*, properly *Trisirā-palli*, the city of the Giant *Trisirā*. It is also the name of a servile tribe of Hindus in the south, similar to the *Pallar*, but who are more especially the bondsmen or slaves of the Brāhman proprietors of land. (Wilson.)

Panam.—Money. In Sinhalese, *Panama* = 4 pice = 1 āna.

Pañchakalyānaya.—The five perfections of a woman :—1, *Kṣakalyānaya*, having the hair of her head like a peacock's tail, reaching, when let loose, to the hem of her garment, and curling back ; 2, *Mānsakalyānaya*, having lips resembling in colour the *bimba** fruit, smooth and fitting close to each other ; 3, *Dantakalyānaya*, having white and even teeth without (apparent) interstices, like a well-set row of diamonds, or a piece of smooth polished chank well cut ; 4, *Chhvikalyānaya*, having a smooth, bloomy skin as if varnished with some colour, and resembling in colour a garland of blue lotus if the woman be one of dark complexion, and if a fair one, the hue of the *Kinihiriyā*† flower ; 5, *Wayakalyānaya*, perpetual or unfading youth, appearing as if she had borne only one child, although mother of ten children.

The term is also applied to a horse whose feet and forehead are white.

Pandal or *Pandar*. *Pandell*.—A temporary shed or booth, a structure of cloth or basketwork supported on posts for giving shelter to persons assembled on any festive occasion, as at a marriage ; also any shed. (Wilson.)

Panguwa.—A share. A division, an estate.

Pandita.—Vernacularly, *Pandit* or *Pundit*. A learned Brāhman, one who makes some branch of Sanskrit learning his special study and teaches it. (Wilson.)

Panduru.—An offering of money.

Pandurumila.—A Kandyan term for a fine.

Panikkila.—A term applied to a tom-tom beater.

Parangi.—Portuguese. Also a disease so called.

Paramparā.—A generation, succession.

Pāram.—A *kandī*. A weight of five hundred pounds, being twenty-eight *Tulām*, or twenty *maunds*, according to Continental usage ; a candy.

Pāruwa.—A boat.

Paṭabendinama.—A title conferred by the kings of Kandy by tying on the forehead a metal plate or a piece of embroidered silk.

Pattanam.—A seaport town.

Pattiya.—A fold of cattle.

* A cucurbitaceous plant bearing a bright red gourd (*Momordica Mono-delpha*), the *Kem'gedi* of the Sinhalese.

† *Pterospermum acerifolium*, or *Pentapetes acerifolia*.

Pata.—A measure of grain. One-fourth of a sér.

Pttuwa.—A division of country.

Peon (?).—The term commonly used by Europeans for the Hindustáni, *Pidda*, a footman, a foot soldier, an inferior officer of police or Customs, or of Courts of Justice, usually wearing a badge, and armed with a lance, or sword and shield; in some places the term denotes a kind of local militia; it is also commonly, though laxly, used as a synonym of *Markdra*, to denote a running footman, a courier, a messenger. (Wilson.)

Peya.—A measure of time, equal to twenty-four minutes.

Pehidum.—Raw provisions supplied by the people to an officer travelling on duty.

Pice.—See *Paisá*.

Pidéna.—An offering to a demon.

Pihanañila.—A Kandyan term for a cook.

Pihiti.—An ancient division of Ceylon.

Pintáliya.—(From *pin*, charity, and *táliya*, a pot or vessel.) A pot or vessel of water placed on the roadside for the use of travellers.

Pirivena.—A college attached to a Buddhist monastery.

Piya-urume.—Paternal inheritance.

Ponkal.—"Incorrectly, *Pongol*, from the verb *pongu kiratu*, to boil or bubble (to boil rice). A boiling or bubbling up, the boiling of rice, whence it becomes the name of a popular festival held by the Hindus in the Madras Provinces on the entrance of the sun into the sign of Capricorn, or on the 12th of January, the beginning of the Tamil year, when rice is boiled and distributed. The festival lasts several days, but the chief celebration is confined to the first three days." (Wilson.)

Pijá.—An offering, a festival, corruptly, *Poojá*.

Purána.—*Lit.* old, the especial designation of a class of works of which eighteen principal are enumerated, in which the ancient traditions of the Hindus, and legends and doctrines belonging to the chief sects, as Saivas and Vaishnavás, are embodied. (Wilson.)

Pinnákkú.—*Piákkú*, vul. *Puákkú*, corruptly, *Poonack*. Refuse, after pressing, of coconuts, rape seeds, etc.; oil cake.

Rájá.—A prince. A king.

Rajakáriya.—Royal, or Government service.

Rákshaya.—A demon, a monster.

Rata sabé.—A council of a Rata, or country.

Rahu.—An Asura, to whom the eclipses are ascribed. The ascending node.

Ridi.—A Kandyan silver coin, about eightpence in value.

Rishi.—A sage.

Ritta.—The fourth, ninth, or fourteenth days of the lunar fortnight. They are considered as unlucky days.

Ritigaha.—The Upas tree of Ceylon.

Riyana.—A cubit.

Ruhunu or *Rohana*.—An ancient division of Ceylon.

Rúpiya.—Commonly, *rupee* H. (from Skt. *rúpya*, silver,) a silver coin, the general denomination of the silver currency of India, and the standard measure of value. * * * * * The weight, intrinsic purity, and value in shillings of the present "Company's Rupee," is as follows :—

Weight.	Pure contents.	s.	d.
Tr. Grs. 180	165	2	0½

As, however, silver is subject in the London Mint to a seigniorage

- of nearly 6 per cent., the London Mint produce of the Company's Rupee, if of full weight and standard value (11 dwts. fine) should be 1s. 11d. (Wilson.)
- Sabé*.—An assembly, a council, Skt. *Sabhá*.
- Sabhāwa*.—Another form of the same word.
- Sahib, H. and A.*—A master, a lord, a companion; in Hindustāni, the usual designation and address of a respectable European, like Master, Sir, etc. (Wilson.)
- Saka or Sāka*.—Vulgarly, *Skuk* or *Shuku*. An era in general, but the term is applied especially to that which is reckoned from the reign of a prince of the south of India named *Sālivāhana*, commencing in the 79th year of the Christian era, and to be identified with the latter by adding 78½. (Wilson.)
- Sandésaya*.—A letter, a poem in the shape of a message, on the plan of the *Mēghadūta*, or Cloud Messenger of Kālidāsa.
- Sannyāsi, Skt.*—A Hindu of the fourth order who has renounced the world and lives by mendicancy: the term is now applied to a variety of religious mendicants, some of whom wander singly about the country subsisting on alms. The *Sannyāsi* is most usually a worshipper of Siva. (Wilson.)
- Sannasa*.—A royal grant, usually on copper, but sometimes on silver or stone. Pl. *Sannas*.
- Sanné*.—A translation, a paraphrase.
- Saviññānaka*.—Animate. *Saviññāka wastuwa* means property in *living beings*, such as slaves, cattle, etc., as opposed to *Aviññānaka*, *q.v.*
- Sér*.—Commonly but incorrectly, *Seer*, corruptly, *Saer*, H., etc. (from the Skt. *Sétaka*). A measure of weight, varying in different parts of India, for different articles, but generally reckoned in Berigal at 80 *tolas* or sicca weight, or as $\frac{1}{4}$ th of a *man*. A *ser* in avoirdupois weight is 2 lb. 0 oz. 14·592 dr. The Tamil *ser* is reckoned equal to 8 *Palam*. (Wilson.)
- Sarráf*.—"Commonly, *Saraf*, Vernacularly, *Sarāph*, *Sarāpé*, *Sarāpu*, *Sarābu*, corruptly, *Saraff*, *Sharāf*, *Shroff*, H. A money changer, a banker, an officer employed to ascertain the value of different currencies. (Wilson.)
- Sikka*.—In some dialects *Sikā*, commonly written *Sirca*, H., etc., *Sikka*, or *Sikā*. A coining die, a stamp, a mark, a seal, a signet, a royal signet, a stamped coin, especially the designation of the silver currency of the kings of Delhi, adopted by other Indian princes, and eventually by the East India Company. (Wilson.)
- Sikh*.—H. *Sikha*, from *Sishya*, Skt. A scholar, a disciple; the name of the people of the Panjāb, as the disciples or followers of Nanak Shah. (Wilson.)
- Sipāhi*.—Corruptly, *Seapoy*. H. and P. A soldier. (Wilson.)
- Sisyūnnasiya Paramparāna*.—Succession from pupil to pupil, of a priest of Buddha. Pupillary succession.
- Sittuwa*.—A document, generally applied to a document or order written on a palmyra or talipot leaf.
- Sloka*.—A Sanskrit stanza.
- Sri*.—Prosperity; signature of the kings of Ceylon.
- Sūbahdār*.—"H., etc., *Sūbbhedār*, the Governor of a Province, a Viceroy under the Mogul Government, a native officer in the Company's army, holding a rank equivalent to that of a captain under the European officers." (Wilson.)
- Sūdra*.—Vulgarly, *Sooder*, Skt. (*Sūdra*). The designation of the fourth or servile caste of the Hindus, or of a member of it: the term is now

- vaguely and incorrectly applied to all the mixed castes, to all who are not either Brāhmanas, or out-castes, to all the other castes engaged in agriculture, trade, arts, and manufactures. (Wilson.)
- Talagaha*.—The talipot tree.
- Talapatu*.—Leaf of the talipot tree.
- Talāwa*.—An open glade, or meadow.
- Tambāḍka*.—A composite metal, copper mixed with gold.
- Tāmbraṇni*.—An ancient name of Ceylon—P. *tambapanni*. Hence the *Taprobane* of the ancient Greeks and Romans.
- Tampi*.—Less correctly *Tambi*. Younger brother. A term of respect used by an older to a younger person implying kindness. A term used in addressing a Moorman.
- Tāṇayama*.—A resthouse, a division of country attached to a resthouse.
- Tāndal*.—The master of a dhoni.
- Tantan*.—Vulgarly, *Tom-tom*, *Beng*. A small drum, especially one beaten to bespeak notice to a public proclamation; it is laxly applied to any kind of drum. (Wilson.)
- Tapāl*.—Tel. and Karn., *Tappālu*, Mar., *Tapāl*. Guz., *Tapāl*. The post, the carriage and delivery of letters, etc. (Wilson.)
- Tāt*.—H., etc., *Tāt*, Mar. *Tat*. Canvas, sackcloth. *Tati*, more usually *Tatti* and *Tāti*. A matted screen, a frame of wicker work. (Wilson.)
- Tawalama*.—A number of oxen laden with merchandise.
- Teppam*.—A Raft. See *Kattumaram*.
- Thag*, *Thug*.—H. etc., *Thak*, *Thag*. A cheat, a knave, an impostor; latterly applied to a robber and assassin of a peculiar class, who, sallying forth in a gang of smaller or larger numbers, and in the character of wayfarers, either on business or pilgrimage, fall in with other travellers on the road, and having gained their confidence, take a favourable opportunity of strangling them by throwing their turbans or handkerchiefs round their necks, and then plundering them and burying their bodies, etc. (Wilson.)
- Ṭimba*.—Four kurunies.
- Tōni*.—A boat, a canoe.
- Tom-Tom*.—See *Tantan*.
- Torana*.—A triumphal arch.
- Tudupata*.—An order, or grant, given by word of mouth and recorded on an O'la.
- Tulāna*.—A division of country, a district. The term is peculiar to the district of Nuwarakalāwiya.
- Udakkhiya*.—A Kandyan musical instrument.
- Udaiyār*.—A headman.
- Undiyal*.—Draft. A Bill of Exchange.
- Uparāja*.—A sub-king.
- U'liyam*.—Corruptly, *Oelian* service due to a deity, a guru, a superior by birth, a natural obligation, the obligation of a slave to his master.
- Ulpēnge*.—The bathing establishment of the kings of Kandy.
- Vaiṣya*.—Skt. Vernacularly. *Vais*, or *Bais*, the name of the third primitive caste of Hindus whose means of subsistence, according to Manu, are agriculture, trade, and the keeping of cattle.
- Vatti*.—Skt. *Vriddhi*. Interest on money. (Wilson.)
- Vayal*.—A rice field, ground fit for rice cultivation, any open field or place. (Wilson.)
- Wahansé*.—An affix to names as a term of respect.
- Walawwa*.—A house, a term applied to the house of a chief or a man of high rank

- Wala*.—A pit, a low place.
Wela.—A field.
Wella.—A dam, an embankment.
Wella.—A sandy place.
Wila.—A pond, or marsh.
Wansé.—Caste, race.
Wāsala.—Palace, gate.
Wattōru, or Wattēru.—A list, an inventory, a writing.
Wedda.—A Vedda. A hunter. Supposed to be the descendants of the
 aborigines of Ceylon, the *Yakku*.
Wedardāla.—A term for a native doctor.
Yala.—The Yala season or harvest.
Yantra.—A magical diagram. A machine.
Yawa.—Barley.
Yawana.—Vernacularly, *Yavan* or *Jaban*. A foreigner, applied originally
 by the Hindus to the Ionians or Greeks, but in later times to Arabs
 and Europeans. (Wilson.)
Yoduna.—Pāli and Skt. *yōjana*, equal to 4 *gav*.
Yondā.—A Moorman.
Yónaka.—The Pāli term for *yavana*, a Bactrian, a Greek.

} Common terminations of
names of places.

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THE "TROPICAL AGRICULTURIST," Vol. I.—A planter, in ordering a copy of this book to be sent to a relative at home, writes : "To be the same as my own just received, the binding of which is well done, the covers extremely neat and tastefully finished." Another correspondent writes : "I venture to say the volumes of the *Tropical Agriculturist* will be at a premium a few years hence : it is a book which is bound to rise in value as time rolls on, and subscribers will probably, if they so choose, be able to sell at a handsome profit, besides having had the benefit of using the information in the meantime !"

THE "TROPICAL AGRICULTURIST."—A Ceylon planter writes : "Surely you don't think I could do without the *T. A.* I sent a copy home and forgot to mention it. Last mail my father wrote : 'A very useful and interesting periodical called the *T. A.* has been sent me. I send it to you (I) and intend to take it in and send it on after reading it.' He forgot to look where it came from."

THE "TROPICAL AGRICULTURIST."—A planter writes : "The publication is invaluable to all interested in agriculture, and no planter in Ceylon should be without it."

THE "TROPICAL AGRICULTURIST."—A Coorg planter is good enough to write : "All who receive the *Tropical Agriculturist* in this quarter are much pleased with it, and will, I think, continue to be regular supporters, the number of whom cannot fail to increase as the value of the publication becomes generally known."

THE "TROPICAL AGRICULTURIST."—A native gentleman writes : "It will be very useful and accomplish a long-felt want if the London and New York Price Currents are included in the *Tropical Agriculturist*." This is now done. A Nawalapitiya planter writes : "The *T. A.* is a special comfort to me, and I am looking forward to this month's No."

THE "TROPICAL AGRICULTURIST."—"While on a visit to Ceylon, I have been much interested in perusing the back numbers of the *Tropical Agriculturist*, which seems to me to contain an enormous amount of useful and practical information, and which ought to be in the hands of every planter."—*Cor.*

THE "TROPICAL AGRICULTURIST" (*continued*).

THE "TROPICAL AGRICULTURIST."—An old colonist writes from the mother country : "The success of the *Tropical Agriculturist* was so evident, and so certainly assured from its first issue, that I have hitherto not thought it necessary to say one word in its favour, and I only write now to briefly record my candid opinion that it has more of the elements of permanency about it than, perhaps, any publication ever issued from the Indian press—not excepting the *Government Gazettes*. In all probability, it will live as long as any of the products, regarding which it records information so interesting and valuable. May it live as long as the Bogaha itself! Meanwhile, find my subscription for two years enclosed. The only suggestion I have to make is to implore you not to 'improve' or alter the work in any shape or form down to its fine classic cover. Let us have it uniformly the same for the next half century at least."

"THE 'TROPICAL AGRICULTURIST' is highly appreciated by all who read or have read it, and one and all declare that it supplies a long-felt want."—*South Wynaad Cor.*

"THE 'TROPICAL AGRICULTURIST' is indeed a most valuable book, and I would ask you to continue sending it. Having only coolies here you can imagine such a book is a regular Godsend, without taking into consideration the valuable information it contains."—*Mr. Grant, Cocos Islands.*

THE "TROPICAL AGRICULTURIST."—"We have lent us by a friend a number of the *Tropical Agriculturist*, published in Colombo, Ceylon. Its perusal enables us to state that we view it as a serial which will be found most interesting to every planter, as the large amount of information contained in its varied and able articles cannot fail to prove of value to them. Cocoa, tea, coffee, cinchona, sugar, rice, palms, and other products are dealt with. The contributions are from scientists of acknowledged repute, while the statistics which it furnishes are highly important. The articles on cinchona cultivation and production are exhaustive, and replete with information, which, with the extended cultivation (by private individuals) of this plant now going on in Jamaica, must be perused with great attention. The *Tropical Agriculturist* we must not omit to say is published by Messrs. A. M. & J. Ferguson, *Ceylon Observer Office*."—*Trinidad Chronicle.*

"THE 'TROPICAL AGRICULTURIST' for June, published at Colombo, is crammed full of original and selected matter relating to cinchona, coffee, tea, tobacco, and other products of Ceylon. Doubts which had arisen as to the identity of *Cinchona succirubra*, so largely planted in Ceylon, and a most valuable species, are set at rest."—*Gardeners' Chronicle.*

"THE 'TROPICAL AGRICULTURIST' is the title of a monthly record of information for planters of coffee, tea, cocoa, India-rubber, sugar, tobacco, cardamons, palms, rice, and other products, suited for cultivation in the tropics, published by Messrs. A. M. & J. Ferguson of Colombo. Haddon & Co. are the London agents."—*Nature.*

THE "TROPICAL AGRICULTURIST."—"We have received the *Tropical Agriculturist* for June. It is a monthly record of information for planters of coffee, tea, cinchona, sugar, palm, rice, or products suited for tropical cultivation. It is an excellent publication, brimful of facts and information. It is published at Colombo, by Messrs. A. M. & J. Ferguson, at the *Ceylon Observer office*. We have much pleasure, therefore, in drawing attention to the publication, which had in June reached its thirteenth number. It is one interesting to the naturalist and to all desirous of information; whilst it is indispensable, we think, to the planter or estate manager. Each number contains some ninety closely-printed pages, and the low price brings it within the reach of all. It is sold at agencies in London, Aberdeen, Madras, Calcutta, Bombay, Singapore, Penang, Batavia, Port Lewis, Durban, Jamaica, Trinidad, British Guiana, and throughout Australia by Messrs. Gordon and Gotch. The June issue has, we should add, a full index for the first thirteen numbers."—*Home News.*

THE "TROPICAL AGRICULTURIST" (*continued*).

THE "TROPICAL AGRICULTURIST."—*A Monthly Record of Information for Planters. Colombo, Ceylon; A. M. & J. Ferguson.*—"The planters of India and Ceylon have an able paper in the *Agriculturist*. It is deserving of commendation from our point of view for the closeness with which it adheres to its own special sphere, and for the careful and exhaustive manner in which subjects connected with the planter's occupation are arranged and dealt with. The information contained in reference to the cultivation of coffee, cocoa, sugar, palms, rice, etc., is of special interest to the English reader, but with respect to the rise of the trade in cinchona our interest is considerably heightened by the present admitted position of this bark in the British pharmacopœia and the boon which it confers from its medicinal qualities, not only in the treatment of human ailments, but those of animals also. For in dealing with diseases of cattle, sheep, horses, and dogs, cinchona bark alkaloids are just as valuable as in the case of human patients. It has been the best friend that the emigrant, the traveller, or the soldier ever had. In the swampy and malarious regions of the earth, as well as in the hot alluvials and deltas of the tropics, it is an agent of relief to the suffering. We are not surprised, therefore, to learn from the periodical before us that the commerce in cinchona is flourishing in India, Ceylon, and Java. The exports to this country in 1877 amounted only to 3,912,000 lb., valued at £402,000. In four years' time, however, that is in 1881, the exports had increased to 14,024,000 lb., valued at £1,812,000. Meanwhile the price had risen from 2s. per lb. to 2s. 7d. In conclusion, we may say that the *Tropical Agriculturist* contains an abundance of facts, discussions, and statistics of quite as much importance to the botanist as to the agriculturist."—*Lawl.*

THE "TROPICAL AGRICULTURIST."—This new venture on the part of the proprietors of the *Ceylon Observer* has completed its first year of publication and forms a very interesting volume. To those whose business brings them into connection with the various products of Ceylon this monthly paper will be found very useful, while to planters and estate managers in various parts of the world the matter contained in the *Agriculturist* is invaluable. To the naturalist a publication of this sort needs no word of commendation.—*British Trade Journal.*

"We have received from the publisher several copies of the *Tropical Agriculturist*, a monthly record of information for planters of coffee, tea, cocoa, cinchona, sugar, palms, rice, and other products suited for cultivation in the tropics. It is a journal in book form, containing eighty pages of closely-printed matter, and treats fully and forcibly on the various topics above mentioned. As most of the tropical productions are already acclimatised in Queensland, and information with reference to them is our present want, we shall have much pleasure in laying before our readers from time to time some of its most suitable extracts; and the book itself would prove a welcome visitor to any cultivator's home in the tropics."—*Queenslander.*

Besides the above, the *Tropical Agriculturist* has been favourably noticed by the *Calcutta Englishman*, *Madras Mail*, *South of India Observer*, *Straits Times*, *Melbourne Argus*, *Graphic*, *Trübner's Literary Record*, etc.

